Interstate Medical Journal.

VOL. VIII., NO. 7. JULY, 1901.

Issued Monthly for One Dollar a Year.

EDITORIAL DEPARTMENT.

WARREN B. OUTTEN, M. D., - - -
WILLIAM PORTER, M. D., - - - - } EDITORS.
R. B. H. GRADWOHL, M. D., - - -
OTHO F. BALL, M. D., - - - - - MANAGING EDITOR.

Address all communications, news of medical interest, subscriptions, etc., to the INTERSTATE MEDICAL JOURNAL CO., COMMERCIAL BUILDING, ST. LOUIS, MO.

SUNSTROKE.

With the onset of the semi-tropical temperature which is at present prevailing in this latitude, the practitioner may begin to have his eyes open for sunstroke. This formidable condition is always present in the district included in the Mississippi valley. It is important for us to recognize it when it occurs, and still more important to apply remedial measures for its relief. Some idea of its danger to life can be obtained from the sum of all statistics in this climate, showing that fifty per cent. mortality is what is to be looked for in the general run of cases. St. Louis in hot weather annually furnishes a goodly quota of the percentage of cases occurring in this district.

It is not always necessary that the case be subjected to the direct action of the sun's rays in order to be afflicted by thermic fever. On the contrary, in our city we often find it occurring at night-time, in individuals who have been toiling in the sun all day, and who are so much oppressed by fatigue and heat at night that their heat-regulating centers give way, giving us the condition of thermic fever. The prognosis of the cases occurring in the city is often grave, for the reason that we meet with this condition very often in laborers who, in addition to their manual labor, have been imbibing alcoholic drinks during the day. This further aggravates their susceptibility and further diminishes the chances for a *restitutio ad integram*.

Once the diagnosis is made, treatment should be begun immediately. It seems that the best results are obtained by fighting the troubles with nature's great antipyretic agent, cold water. The temperature of these thermic fever cases is often quite high, sometimes as high as 107 and 108. They should be immersed in cold water, preferably the ice bath. Care should be taken that they are not kept too long in the ice bath. For example, keeping the patient in the ice bath until his temperature drops to normal means that it will become subnormal when he is removed from the bath. This can readily be avoided. Again, his weakening heart should be whipped up with direct stimulation by means of hypodermatic injections of strychnine. It is obviously wrong to give him further alcoholic stimulation. In those cases where we find the patient with a subnormal temperature, he should be warmed by hot water bags, etc. Too energetic treatment is ill-advised, since he may be made worse by it. An intelligent expectant treatment in addition to the above recommendations should be enacted to meet unusual and special indications.

EXTENDING AN OPERATION WITHOUT CONSENT.

A case involving the legality of a surgeon to carry out operative procedures in his work in the abdomen, without the consent of the patient, is now being discussed in Chicago. A woman was operated upon by Dr. Martin at the Post-Graduate Medical School of Chicago for the reduction of a large ventral hernia. It was found that she was suffering with tuberculosis of the appendages, not suspected before operation, and so the surgeon decided that for her best interests the ovaries should be removed. This was done, and after the patient was informed of it she instituted legal proceedings to recover from the surgeons in charge, the damages being estimated at $25,000. The defense maintained that although there was no consent on the part of the patient, the condition of tuberculosis of the ovarian structures would have ultimately killed the patient, so that operative interference was considered justifiable—this plan of defense raising the question of the actual authority of the surgeon in meeting with unexpected conditions while operating. The case was twice tried in the Superior Court, resulting in a verdict for the defendants, the last judicial authority giving it as his opinion that although the plaintiff had not impliedly given consent to the surgeon to do whatever he thought best for her interest, he would nevertheless hold that the law would be so, should the point be properly raised. The case has been appealed. General legal opinion is to the effect that the law will allow the surgeon to do whatever he thinks is for the best interests of his patients, under similar conditions.

It is confidently to be hoped that the case will come before the Appellate Court, and that the law as so cited will be laid down. The issue is a new one and one which demands the attention of the judiciaries. It will arise soon again, and 'tis small wonder that it has not arisen before.

Certainly, the spirit of equity would lead the most severe tribunal to see that by ruling against the defendants in the foregoing case, that the surgeon is literally standing between the "devil and the deep sea"—on the one hand, the prospects of loss of life should he neglect to radically remove conditions which demand their removal and yet which he has not foreseen; on the other hand, the certainty of being held guilty of assault and battery and the damage suit it brings with it. There is no other course to be followed by the law which is compatible with justice and reason than which upholds the surgeon in such conditions.

A PARABLE.

Once upon a time, not long ago, there were certain physicians, supposed to be upright, God-fearing men, serving the sick and avoiding the appearance of evil. In the same city were pastors and teachers who were believed to teach pure doctrine, and were leaders among men.

Now it came to pass that within the fold of these pastors crept a wolf in sheep's clothing, who betrayed himself by his restlessness and hunger for blood. When the shepherds found him they cast him out.

Immediately the wolf began to make a great howl, extoling his virtues and appealing to the credulity of the sheep, many of whom were deceived by his vauntings.

After a while it came about that the wolf wanted recognition so as to get more sheep which were needed in his business. So he made himself known to the physicians of that place and asked for a character.

Now these physicians, forgetting that they knew nothing of the work of the pastors, and that they were ever the recipients of kindness from these pastors, listened to the voice of the wolf and gave him that that he desired and so enabled him to boost himself even more than aforetime.

And the world that taketh notice of these things, wondered.

[The characters in this may be transposed and yet the parable convey both truth and accuracy.]

STATISTICS OF CANCER.

Some idea of the prevalence of cancer on the continent can be gained from the interesting note published by George Heimann, of Berlin. He says that the percentage of death from cancer in the kingdom of Bavaria has increased from the year 1890, when it was 8.1 to the 10,000 inhabitants to 10.2 to 10,000 inhabitants in 1899. This increase is partly due to the fact that more cases are being recognized now by the clinician and principally by the pathologist at autopsy than formerly. In addition, the percentage of cancer in man has increased proportionately to that in women. In man the percentage has increased at the rate of 40 per cent., in women at the rate of 34 per cent. In the year 1899 in the district of Swabia the mortality rate from cancer was 13.6 per cent., in upper Bavaria 13 per cent., in Pflaz between 7.2 and 7.5 per cent. In the

Rhenish district the mortality in the cities was 13.4, in the country 9.7 per cent. In Munich it was 14.7 per cent., in Nurmberg 13.6 per cent. The number of case which are now treated in the hospitals of Germany has considerably increased.

These figures show conclusively that cancer is increasing steadily. Should we make similar investigations in this country, the same state of affairs could probably be ascertained. It goes without saying that there is more operative interference in the case of cancer, particularly as it occurs in women, but who can say that it cuts down mortality? It is true that there is a temporary relief, but all these patients ultimately die of metastatic disturbances, referable to the original cancerous condition. Even though such bloody and protracted operations as Halsted's operation for cancer of the breast are faithfully carried out, we know that the very fact that it is expedient to go into the cervical glands to extirpate them means that extension has already taken place, that probably the pleural lymphatics are affected and metastasis extremely liable to occur. In short, we may say that we are at the rope's end in this regard: and we will remain there until more light is thrown on the etiology of the disease. We may still hope that that etiology which is correct may still be discovered, even though attempts in this direction have been hitherto attended with but scant success.

FAILURE TO REPORT SMALL-POX IN THE CITY.

Our attention is attracted to a circular letter recently issued by the efficient and wide-awake Health Commissioner of St. Louis, Dr. Max C. Starkloff, calling the physicians of the city to account for their failure to report to the Health Department cases of mild small-pox which have been treated during the past spring. It seems that there have been over two hundred cases of small-pox in this city since April 1st. These cases have been of the mild type, and but few deaths have occurred. Owing to the mildness of the type new prevalent, the disease has spread much more rapidly than it would have had the type been a severe one. In many cases the disease was discovered by the department while the patient was under treatment by a physician, yet no report was made to this effect.

The Health Commissioner very wisely insists on the reporting of such cases immediately to the department, and offers the diagnostic skill and acumen of the experts of the department in aiding the physicians of the city in their diagnoses. Attention is called to the fact that failure to report such diseases as variola, diphtheria, etc., is a misdemeanor and punishable as such.

We feel that the Health Commissioner is perfectly justified in his warning to the physicians of the city to report such cases or else be prosecuted. It is an injustice to him in the discharge of his duty that physicians do not back up his assiduous labors at safe-guarding the health of the community by co-operating with him in stamping out pestilential diseases. In case of

a severe epidemic of any disease, it is to the chief of the Health Department that the community looks for explanation. We therefore heartily endorse his action in this matter, and believe that he who neglects the timely warning so courteously given deserves full punishment. In our opinion, failure to report such a disease as small-pox is a most flagrant act of carelessness on the part of the physician, and one which should be punished by a fine sufficiently large to bring him to his senses "forever and aye."

MUSICAL SENSATIONS IN SURGICAL ANESTHESIA.

A Paris dentist, Drossner, called Laborde's attention to the fact that while his patients succumbed to the influence of an anesthetic, he had noticed that the hallucinations were invariably connected with the sounds from the street below. The auditory sensations seem intimately connected with the anesthetic sleep, and the idea occurred to him to substitute for the discordant, terrifying sounds of the street harmonious musical sounds. He arranged a musical phonograph with a receiver for each ear. As the patient took his seat, the receivers were placed in his ears, and the nitrogen gas administered while he could hear nothing but the music from the phonograph. The operation over, the patient is aroused with none of the hallucinations from the street noises, but calm and cheerful as before, saying that he heard nothing but the music.

This ingenious device is certainly a good advance on the part of the anesthetist. Not only can it be used in the case of the temporary anesthesia of nitrous oxide gas, but it can be called into action in ether and chloroform narcosis. It is a common experience that one of the most disagreeable features about the taking of an anesthetic is the dull noises heard by the patient. These can all be avoided, as Laborde mentions, by using a phonograph. Laborde pointed out to the Academy of Medicine of Paris that the general anesthesia may be begun with nitrous oxide gas, using the phonograph, and then the anesthetic state kept up with either ether or chloroform. This procedure certainly robs the patient of a most painful part of the anesthesia, and should be practiced wherever practicable. The French dentist who first advocated it is certainly a resourceful individual and deserves great credit therefor. The procedure may seem a refinement to some, but it certainly will win the gratitude of those individuals who suffer so much from the auditory hallucinations of anesthetization.

WAR ON MOSQUITOS.

Ever since the work of Manson, Ross, *et al.*, was published, the idea of the destruction of the mosquitos, the carriers of the malarial plasmodium, has been before the profession. Concerted efforts of import have not yet been made, except in an experimental way. The work of Koch on the west coast of Africa showed some good results in the wholesale destruction of the mosquito, but nothing extensive was done. The Italian authorities are preparing this year to continue some work begun by them

first in 1899. Experiments along this line for over two years have proved that railroad employés who have been protected against the bites of mosquitos have escaped the disease, malaria. The constant susceptibility of railroad employés to malaria has always crippled the transportation companies. Practically, the entire force has to be changed twice a season. The first attack on the mosquitos in the Roman Campagna was begun over two years ago by Professor Celli. He worked on two railroad lines, the Prenestina Cervara and the Ponteglara systems. He selected five cottages on the first line occupied by workmen, and three on the second line. Every known precaution to protect the inmates was adopted, with the result that in the protected cottages only four out of the twenty-four persons inhabiting them were attacked by malaria, and these four did not follow out the professor's instructions. In one cottage the inmates would not adopt any precautions, with the result that twelve out of the fourteen contracted malaria. The experiments on other lines were equally successful.

The idea first promulgated in connection with the war on mosquitos was an attempt at destruction of the mosquitos themselves; but if the work of Celli applies in all cases, it will be far easier to protect the people from the bites than by killing off the tribe of Culex and Anopheles. However much the killing off of the whole malaria-carrying mosquito families may be "a consummation devoutly to be wished," it nevertheless seems more practicable at present to follow Celli's method of warfare.

MEDICAL COLLEGES IN ST. LOUIS.

A very few years ago St. Louis was overburdened with medical colleges, and nearly every physician was a "professor"—over half a score of institutions able to grant diplomas, an average of thirty professors and as many assistants to each, and students by the wholesale.

The teaching was no better and no worse than in other cities, and the students were the average. The boards of health permitted registration after a two years' course. What with low fees, "concessions," great energy on the part of managers, and easy admission and graduation, "doctors of medicine," so-called, were turned out by the hundred, to meet (most of them) bitter disappointment and ridicule.

The action of the boards of health in requiring preliminary education and a three (and now a four) years' course, has changed all this. Moreover, the action has been wisely seconded by the colleges themselves. Students no longer matriculate "to get through." The "hurry boys" dropped out, and the graduating classes became smaller. Nor was this all. Requirements for preliminary education and graded courses produced a higher average of intelligence and better instruction.

Our medical colleges have wisely and effectually aided the State boards. Not long ago two of the leading colleges consolidated, and we have another movement in advance—the union of the Marion-Sims and

the Beaumont colleges. The Woman's College has dropped out, and there are signs of further cutting down in the list.

So it is that in a very short time St. Louis can be congratulated on not only a reduction in the number of colleges, but a decided increase in the strength and availability of those continuing. The educational era for St. Louis is but begun, and our medical colleges will not be found wanting.

RESUSCITATION FROM COLLAPSE IN CHLOROFORM NARCOSIS.

The subject of bringing back to life those individuals who succumb to chloroform or ether narcosis is an interesting one, and one withal quite important, inasmuch as this accident is liable to occur, and does occur, comparatively often. Many of us have seen patients, apparently doing well during the administration of an anesthetic, suddenly stop breathing and die, without one single tangible reason for it, so far as the anesthetist can make out. In these cases all the ordinary means of resuscitation are tried without avail. Artificial respiration, Laborde's method of rhythmic retraction of the tongne, application of the faradic current, flagellation of the chest—all these means are tried without success. In despair, the artificial respiration is kept up for hours, but only to find that the heart will not functionate again.

It is in these severe cases that we most earnestly look for something better than what we now possess in the way of resuscitation. Have we any other means? It is true that some have advocated in the extreme cases the procedure of making a puncture into the right ventricle, but this has been absolutely proven futile. In this connection anything which promises results is most interesting to the medical profession.

The latest procedure to promise results is that first advocated by Prus, described in the *Wiener klin. Wochenschrift*, 1900, Nos. 20 and 21. Prus cites some experiments which he performed on dogs which he had killed with chloroform. After failure to bring them back to life by tracheotomizing them and blowing air into the lung, he made rhythmic compression of the heart with the fingers, at the same time in some cases transfusing the animals with a salt solution into the centripetal end of the femoral artery. He began his massage of the heart in some cases one hour after death. In twenty-one cases in which he used this method he resuscitated the animals sixteen times, or a percentage of seventy-six.

Further interest is elicited in Prus' experiments by reason of the fact that he narrates a case in a man, where, one hour and three-quarters after death, the heart was exposed and massage begun; after fifteen minutes contraction of both auricles began, but ceased afterwards. In another case, reported by H. Maag, *Centralblatt fuer die gesammte Medicin*, January, 1901, the patient suddenly ceased breathing during the course of an operation. All ordinary means failed to revive him. The heart was then exposed and compression begun, with the result of making it beat again. The patient lived over twelve hours and finally died. Together with

massage of the heart, Maag practiced forcible blowing in of air into the lungs through a tracheotomy wound. In this case the pleural sac of the left side was opened in exposing the heart; also in forcibly distending the lungs the stomach and intestines were filled with air, causing the diaphragm to become rigid—a decided handicap to the stricken heart in its efforts to functionate again.

In another case reported by Aglinzeff, *Centralblatt fuer die gesammte Medicin*, No. 21, 1901, a boy suffering with a pyemic infection was operated upon, and after collapse and the failure of the ordinary means to revive him, this procedure of massage of the heart was begun. His heart began to beat again, but ceased after a half hour.

These cases are intensely interesting and lead us to believe that massage of the heart in the manner pointed out by Prus is the best procedure in extreme cases. Even though the cases reported failed to survive, it was demonstrated that the heart can be made to beat again in cases apparently dead. There were other reasons why the cases did not survive. In all of them, in exposing the heart, the pleural sac was opened and thus a handicap added to the already almost hopeless condition. In the last case, the heart was worn out by months of pyemic infection. In the first case the massage was begun after over an hour's waiting, so that not much was to be expected, yet the heart began to beat after assiduous massage. Moreover, the animal experiments demonstrated what could be done in selected cases with proper and quick means for applying the massage. In summing the whole matter up it can safely be asserted that this method of Prus' promises excellent results in dire cases and should be practiced, not forgetting the precautions which were neglected and helped to make the preceding cases failures. We look forward to news of success along this line.

ORIGINAL ARTICLES.

AN EXPERIMENTAL STUDY OF ANTIPERISTALSIS.[1]

By Dr. Richard Muehsam, of Berlin, Prussia,

First Assistant to the Surgical Department of the Moabit Hospital.

THE question of whether there is such a thing as antiperistalsis of the intestinal tract is an interesting one, not only to the physiologist, but also to the clinician. The solution of this problem will throw light on the clinical observation of stercoraceous vomiting in cases of ileus, and will settle the debated question of whether there is any efficacy in the use of nourishment by way of the rectum—*i. e.*, whether food material placed there is forced upwards into the absorbent part of the gut by backward waves of muscular motion.

Englemann[2] has made experiments on peristalsis and antiperistalsis. The sum of his results can be found in his words: "Smooth muscle fibers can contract in peristaltic waves as well as in antiperistaltic waves." Contrary to this observation is that of van Braam Houckgeest:[3] he made experimental laparotomies for the study of intestinal movements in rabbits bathed in Koch's salt solution (0.6 per cent.) at a temperature of 38° Centrigrade. He came to the conclusion that there has been no observation of an antiperistaltic movement in living normal animals.

Nothnagel[4] operated in the same way, with the additional procedure of irritating the intestinal mucosa by the injection per rectum of a concentrated (ten to twenty per cent.) Koch salt solution and by placing directly crystals of sodium chloride in the intestine. Through this irritation, he succeeded in inducing antiperistaltic waves.

Grützner[5] further elaborated Nothnagel's experiments by working with both man and animals. He proved by direct observation that particles of horses' hair, carbon, etc., when suspended in normal salt solution and injected into the rectum found their way through the large and small intestines as far up as the stomach, which observation was proven in the case of man by finding the particles in the stomach contents. He noted, moreover, that these particles of foreign material *remained* in the rectum, if they were suspended in fluids other than the normal salt solution. He came to the conclusion that the Nothnagel experiments showed that the antiperistalsis was due to the irritation of the intestine by the sodium chloride, whereby a backward current was set up in the alimentary canal.

Christomanos[6] further elaborated Grützner's experiments by excluding the probable sources of error which might have occurred. In other words, he contended that in Grützner's experiments the experimental animals might have licked up the foreign particles from their ejecta, and thereby might have brought them per oram into the stomach. To overcome this source of error, he tried by mechanical means to prevent the animals from licking their anal regions and from touching the ejecta. He

kept some of his animals stretched out on the vivisection table, or kept them throughout the whole course of the experiment bound in a mouse-holder, or tied off the œsophagus in some cases. His conclusions are as follows:

1. Grützner had elaborated the previous experiments of Nothnagel.

2. No observation as yet has been made of antiperistaltic movements in normal animals under normal conditions.

3. Small particles of foreign material injected into the rectum can travel but a relatively short distance upwards into the intestinal coils, for the reason that their further passage is hindered by the necessity of solution with the intestinal contents, by the peristalsis of the intestines themselves, and by reason of the contraction of the muscularis mucosæ, as stated by Grützner himself.

These experiments of Christomanos found new opposition shortly in the work of Swiesynski,[7] who undertook to follow them up in Rigel's clinic in Giessen, with most elaborate precautions to prevent errors. He noted that Christomanos' results were referable entirely to the condition under which he brought his experimental animals.

Swienzynski did most of his operative work on dogs, injecting lycopodium in suspension into the rectum. The dogs were prevented from licking their extremities by means of muzzles made of gauze and wire netting. He came to the conclusion that lycopodium injected into the rectum of dogs or man, would travel upwards into the stomach. Whether the additional precautions of adding salt solution to the injection is necessary to produce this antiperistalsis was not brought out in his experiments, but it is probable that this addition is necessary, judging from some of his citations.

Dauber[8] meantime conducted experiments and opposed the results of Grützner and Swiezynski in these words: "I contend that foreign particles suspended in the solutions, as narrated by Grützner, when injected into the rectum, *cannot* pass the ileo-cæcal valve."

Plantega[9] likewise concluded, as did Dauber, that Grützner's results were incorrect. He contended that foreign particles cannot pass by the valvula Bauhini from the large intestine, and further said that the only efficacy of the normal salt solution was to promote resorption of the food material, when used for such.

After this adverse criticism, Grützner[10] again undertook this work, the result of which was that he adhered to his previous statement that particles suspended in physiologic salt solution, when injected into the rectum, travel upwards; although he admitted that his first researches were not quite free from sources of error. He maintained that the same mixtures, placed in any part of the small intestines, would travel upwards as well as downwards. This is due to the pendulum-like movements of the intestinal coils. Moreover, while the Bauhini valve opposes the upward traveling of large masses, it would not oppose the passage of small

particles. Grützner, nevertheless, did not consider the question solved, but closed his article with the words: "Even though continued experiments would prove that particles are not carried up from the large intestine to the stomach, still we must ever remember the fact that, through the peculiar movements of the intestines, food particles are agitated this way and that way—namely, upwards. We must not call this an antiperistaltic movement, however, and thus add to the misunderstanding already existing."

I would also like to mention Schwarzenberg's experiments on dogs. He made fistulæ from the smaller intestines of dogs, and placed balls of lead in wax in the intestine, and noted that they traveled both upwards and downwards.

We have approached nearer to the question of the existence of antiperistaltic movements by the researches of Kirstein,[11] who worked wth dogs in a different way than the previous investigators. He manipulated the intestinal coils of dogs in such a way that, while still attached in the mesenterium, a small part of the gut was turned on its axis 180 degrees, thus making the intestinal tract reversed for a distance. He turned around in this way 36 ccm. of the whole intestinal tract of the small intestine in dog A; and in dog B he turned 57 ccm. of the small intestinal coil of 209 ccm. The dogs were killed after periods of time ranging from seventeen weeks to three months. In the interval they had digested their food in a normal manner. At the autopsy, Kirstein found in these dogs a dilatation of the gut above and below the place of interference. Kirstein is of the opinion that a real antiperistaltic motion had taken place in that part of the gut which he had twisted. He maintains that the food was not merely forced through the reversed part of the gut, because there was a dilatation both above and below, and he had proved experimentally that forcibly injecting food into such reversed portions of the gut would not produce such a dilatation. Kirstein's conclusions are as follows:

1. The intestine possesses nervous arrangements whereby it makes its contents subject to antiperistaltic movements. (Nothnagel.)

2. The intestine never exerts this antiperistaltic motion under normal conditions. (Nothnagel.) Apparently the overcoming of anastaltic motion is due to severe conditions of innervation, the exact nature of which is not known.

3. Concentrated salt solution is a means of producing antiperistaltic motion.

4. As a physiologic way of bringing about katastaltic motion, take the experiments of Kirstein—*i. e.*, unusual direction taken by the intestinal contents. Kirstein emphasized the fact that the opposition to the usual flow in an intestine, in his experiments, was purely a dynamic one, not mechanical. They applied, however, in mechanical cases as well; for instance, in ileus.

It is my opinion that Kirstein did not take sufficiently into account in

his cases the fact that dogs have peculiarities in their digestion and have characteristics in their intestinal anatomy that must be considered. The dog has a strong intestinal musculature, and it would certainly be possible for the food to be pressed through a reversed part without a succeeding dilatation of that part. In carnivora there is a peculiarity in digestion which must not be forgotton[12]—*i. e.*, that the stomach takes more of the food to digest than the intestine. In other words, when dogs were fed on meat their intestines were never filled out with contents. In Kirstein's experiments it is possible to think that no digestion went on in the twisted gut, that the food after leaving the stomach encountered an opposition to its onward movement in the twisted gut, that it remained stationary and caused the dilatation which was remarked. Afterwards the residue was forced through the reversed part by muscular force alone. I therefore would have preferred to have heard that Kirstein performed his experiments by twisting the entire gut, and not part. To this end I performed my experiments by twisting the whole gut; but unfortunately this procedure cost me the lives of the dogs, who died of early peritonitis. One dog, however, lived long enough to enable us to solve this problem.

On November 15, 1899, I performed laparotomy on a large dog, with morphium-ether narcosis, making an incision 10 ccm. long, extending to the penis. I looked for the cæcum and had it held firmly by an assistant. Then I followed up the small intestine until I came to the duodenum, which in turn was grasped by an assistant. Then I cut into the gut in such a way that I could sew the duodenum to the central ileum and the jejunum to ileo-cæcal lumen. This was difficult because of the fact that two distinct parts of the intestines were joined, one of which had a much larger lumen than the other. This was accomplished by means of the circular suture and the interposition of a Murphy button. A twisting of the entire gut was then not necessary, the lumina having been sewn up in such a way that there was a row of sutures in the mesenteric slit and at the union of the gut margins. The abdominal wall was then sewn up with *etage* sutures, with collodion dressing. The dog stood the operation well, eating and drinking after a day or two, but vomiting meat after eating it. He ate and drank, being attacked with diarrhœa and, after heavy feeding, vomited. In order to make sure that the intestine was functionating in its new position, I injected a suspension of carbon in water into the rectum. The next day the dog ejected black stools, whereas the color of the stool formerly was yellow. After the 26th of November the dog had diarrhœa and vomited his food regularly after eating. He became emaciated and so I decided to perform laparotomy again, thinking that there was a stenosis at the upper suture. This was done on the 7th of December. I found the small intestine partly meteorically distended, partly collapsed. At the upper suture there were adhesions of the gut to other parts so that there was a knuckling of the gut. The stenosis was relieved by breaking up the adhesions, after which

the collapsed part filled with air. Two well-walled-off abscesses were found near the line of suture and were emptied. In removing the adhesions a piece of gut 10 ccm. long was cut off from its mesentery, so that another circular incision and suture had to be made. The dog did not recover from this last operation, dying on the same day.

The autopsy showed that union had taken place in both places and that the continuity of the gut was preserved. Some blood was found in the abdomen as a result of the breaking up of the adhesions. No more abscesses were found. The length of the small intestine was 485 ccm., of which 430 ccm. had been twisted, beginning at a point 55 ccm. from the pylorus. I did not find a spindle-shaped dilatation at the upper line of twisting, as described by Kirstein. Microscopic examination of the place of suture showed a good union. I have obtained beautiful pictures of the gut from the lower suturing point, where there is still to be seen a small zone of granulation tissue in the mucosa.

Through these experiments I have concluded that the gut is capable of moving its contents in antiperistaltic waves. This was proved by me not from a small piece of twisted gut, but by means of the whole gut thus treated. I believe that the vomiting in my dogs was due to the fact that by natural peristaltic waves a portion of the food was pressed back into the stomach, and, as it contained bile and pancreatic juice, it caused vomiting. I am of this impression because the vomited material was not undigested pieces of meat, etc., but yellow-brownish, gall-stained food of fluid nature.

The real muscular strength of the intestinal movements, likewise the movements of a twisted gut, was demonstrated to me by a finding in a second dog upon which I operated. This dog was subjected to the same procedure as the one described above. On the second day after the operation bloody stools were passed, and continued, with vomiting. The dog, who had taken milk and chopped meat up to this time, refused all nourishment and died on the sixth day, after repeated hemorrhages from the bowel. I found at the autopsy that the sutures held well, but that there was an intussusception about 10 ccm. long situated 10 ccm. above the lower line of suture. There were no peritonitic adhesions. The intestine was very dark, the serosa clouded. The intussusception was of this character; that part of the jejunum which had been sutured to the cæcum was invaginated into the cæcum.

Nothnagel [14] differentiates between physiological and pathological intussusception. The first kind occurs without symptoms and is often found in autopsies. Pathological intussusception leads to circulatory disturbances, vomiting and bloody stools, as had been observed in the case of this dog. The dog was suffering with pathological invagination. In physiological intussusception the neck of the invagination lies towards the rectum, while in the pathological variety it lies towards the stomach. In other words, there are but few cases of pathological intussusception where the process has been an upwards one. It is a rarity. [15] How, then,

did it happen that in our dog the intussusception, which was a pathological one, occurs upwards, with the neck pointing towards the cæcum? Was it an exception to the general rule? I do not believe it was, but feel sure that the condition as found by us was due to strong movements sideways of the reversed gut in its efforts at peristalsis. So we may say that the invagination in our case was a "downwards" one—*i. e.*, it would be that were the gut in the normal position. It is assuredly true that the strength of the gut is such that it can produce invagination of a part even below a contracted part, as in this case. (Nothnagel's theory.)

It is not without significance that the tetanic contraction represented by this invagination occurred in close proximity to the line of suture. I would prefer, however, not to generalize too much from this coincidence.

It is true that even though the gut is reversed, its movements go on and the food is passed on as in the normal state of affairs. This conclusion is gained from the observation of the passage of stools from the first dog, especially the staining of the stools from the carbon used.

The vomiting of the first dog during the first sixteen to eighteen days following the operation was due to natural movements of peristalsis, but that which occurred after was due to the condition of ileus which set in, owing to the adhesions. I believe that the question of antiperistalsis is solved by my experiments, inasmuch as the food was passed through the reversed gut in an antiperistaltic manner. It would have been impossible for the first dog to have lived so long, merely by having his food passed through the gut by force of distention, without independent motion on the part of the gut.

The practical point to be deduced from these experiments is that nutriment put into the rectum will surely be carried up into the intestines, where absorption will take place. This movement of food upwards from the rectum may be interpreted as due to the "pendulum" motion of Grutzner's work. I can say, in conclusion, that the explanation of the ileus described may be found in the work of Leichtenstern. [16] According to the mechanismus of Haguenot, the vomiting of formed masses of feces is due to active intestinal movements backwards, but I think the better explanation of these cases lies in Schloffer's remark, [17] when he says that these cases are often due to purely nervous influences, on the basis of hysteria, and that there is no mechanical factor and no intestinal paralysis at all concerned in their etiology. (Translated by R. B. H. G.)

LITERATURE.

1. Grenzgebiete der med. und Chir., Bd. 6, Ht. 3, 1900.
2. Beiträge zur allgemeinen Muskel- und Nervenphysiologie. Pflüger's Arch., Bd. 4, p. 33.
3. Ibid., Bd. 6, p. 266.
4. Beiträge zur Physiologie und Pathologie des Darmes. Berlin, 1884.
5. Zur Physiologie der Darmbewegung. Dtsch. med. Wochenschr., 1894, p. 897.
6. Zur Frage der Antiperistaltik. Wien. Klin. Rundschr., 1895, Nos. 12 und 13.
7. Nachprüfung der Grützner'schen Versuche über das Schicksal von Rectalinjektionen von Menschen und Thieren. Deutsche med. Wochenschr., 1895, p. 514.
8. Ueber die Wirkung von Kochsalzklystieren auf den Darm. Dtsche. med. Wochenschr., 1895, p. 543.
9. Die Theorie Grützner's über Darmbewegung bei Rectalinjektionen mit Kochsalzzusatz. Dtsche med. Wochenschft., 1899, No. 6.

10. Bemerkungen über die Bewegung des Darminhalts. Dtsche. med. Wochenschft., 1899, No. 15.
Ueber die Bewegung des Darminhalts. Pflüger's Arch., Bd. 71, 1898, p. 492.
11. Experimentelles zur Pathologie des Ileus. II. Zur Frage der Antiperistaltik. Dtsche. med. Wochenschr., 1889, p. 1000.
12. Munk, Physiologie des Menschen und der Saugethiere, 1888, pp. 127 und 156.
13. Citiert nach Munk (l. c.).
14. Die Erkrankungen des Darmes und des Peritoneum, 1898.
15. Weiss, Intussusception intestini. Centralblatt für die Grenzgebiete der Medizin und Chirurgie, 1899, No. 17 ff.
16. Der Ileus und seine Behandlung. Verhandlungen des Kongresses für innere Medizin, 1889
17. Ueber Ileus bei Hysterie. Beiträge z. klin. Chir., Bd. 24, Heft 2.

ORAL INDICATIONS OF PHYSICAL CONDITIONS.[1]

By Carl Theodor Gramm, M. D., of Chicago.

THE significance of the multi-varied pathologic pictures presented by the several tissues of the oral cavity has until within recent years remained unappreciated, by both the general practitioner and the dentist. The reasons are, perhaps, that the former has not been much interested in the symptomatology of the mouth, save as he has studied its tissues in specific lesions, and has observed the tongue in gastric and febrile disturbances, and that the latter, the dentist, the oral surgeon, has been too exclusively a technician, and without concerning himself with remoter etiologic factors, has so imperfectly observed and labeled them as being "simply local" in character. Both general practitioner and specialist ought and must in the future meet on a common basis of understanding the value of the symptomatology presented in the mouth. The former will often be aided in arriving at an early and correct diagnosis of present or impending general disturbance, the latter as he approaches in learning the plateau of modern medical science will be able to intelligently treat the tissues under his especial care.

The mouth is an ever-open book, an ever-readable hygeiameter to an expectant observer, because the tissues of the mouth are unique in their sensitiveness to general physical degression, since they must maintain their integrity under the most trying conditions, and because its tissues are within *ocular scope*. Thus the mucous membrane is directly exposed to irritation and infection borne by air, drink and food. Moreover, many systemic poisons are freely excreted by salivary and mucous glands of the mouth, and thus affect the membranes thereof. While the tongue and the muscles of the cheek are supposed to clear the mouth of remnants of food and the saliva flows abundantly to aid chemically and mechanically in this function, it nevertheless remains a fact, stated by high authority, that from a biological standpoint the mouth is filthier than the rectum.

We know that the periosteal membranes within the dental alveoli serve as cushions to receive the pressure of antagonizing teeth. If the

[1] Read at the Ninth Annual Meeting of the Tri-State Medical Society, April, 1901.

same continued blows that these membranes are subjected to were dealt to periosteum in any other region, inflammation and resorption would speedily ensue.

There is not another structure in the human system which in its development bears witness as frequently, as graphically and as persistently to intra- and extra-uterine malconditions as does the enamel, and no other structure is so frequently attacked and destroyed.

At no point save within a few foramina, are nerve fibers so likely to be compressed and angered by engorged blood vessels as within the pulp canals of teeth, and but few structures yield life to so mild irritants as does the pulp. No wonder, then, that hygienic disturbances should post their warnings in the oral cavity, and often, too, before their manifestations have become seriously marked elsewhere.

Before there are noticeable rheumatic twinges, the peridental membrane responds to the excess of uric or lactic acid; there are repeated periods when the teeth "feel sore." Alimentary disturbances immediately and visibly affect the mucous glands and membranes. Periodically hypersentitive teeth are direct witnesses to lessened nerve force, and auto-intoxication registers pronounced complaint by causing the guns to become congested. Busy men and women are not in the habit of noting passing slight subjective symptoms and attributing to them their proper and deeper significance. For instance, rheumatic twinges are often ascribed to the weather and soon forgotten. Gastric and intestinal disorders must have become severe before consciousness of them is awakened. Dull headaches and enervation do not startlingly suggest auto-intoxication. These symptoms are all ascribed to minor affections, but little attention is paid to them, and in the mind of the busy individual they are recognized in a but remote semi-conscious way. Thus the family physician may never become aware of the serious inroads insinuatingly but certainly made upon the longevity of his patients.

To the observer of the oral cavity, however, the story is fully and plainly written. There are striking manifestations often premonitory within the mouth that are essentially typical of their respective diseases. The well-known diagnostic spots of measles on the buccal and labial mucous membranes; Koplik's spots, are of this order. Melanosis of the same tissues, one of the typical signs of Addison's disease, and Leukoplakia oris, a manifestation in advanced phthisis, and often a forerunner of carcinoma. The hypertrophy of the papillæ with marked desquamation of epithelium, known as strawberry tongue of scarlet fever, and the characteristic mouth symptoms in scorbutis and purpura hemorrhagica and of diabetes mellitus (aphthous patches loose) have been too well studied to need elaboration here.

Leukæmic stomatitis may not be considered an accidental complication, but a symptom developed prior to the swelling of lymphatic glands and enlargement of the spleen in leukemia.

The appearance of this form of stomatitis is varied. It may assume the type of scorbutic inflammation, and suddenly disappear (Westphal). It is just this circumstance which presents itself as a typical diagnostic sign. In lichen oris the efflorescences upon the mucous membranes are often the primary foci of the lesion, and announce in advance the skin disease to follow. (Croker, Thieberge, Marx.)

Upon anatomical grounds alone it may be judged that the mucous membranes of the mouth are susceptible to herpes, lupus, pemphigus and urticaria—in fact, to nearly all skin diseases, and that in many instances the disease has within the mouth its first manifestations.

I will not dwell upon those general lesions and symptoms in which the tissues of the mouth play so important a rôle, and often furnish differentiating features toward a direct diagnosis, to-wit: the landmarks of syphilis inherited or acquired; the pus from the margins of the gum in metastatic gonorrhœa; the manifold aspects of the tongue—that is, its shape, whether bulky as in hydrargerism, shrunken as in atony of digestion, pointed as in irritation of the alimentary canal; or its color, whether white as in anemia, or florid as in gastric inflammation, or livid as in prostration; or the significance of its temperature, or its varied coatings denoting possibly thereby biliousness, the typhoid condition, prostration, or blood poisoning.

There are three morbid conditions which I would commend to the attentive observation of, and systemic treatment by, the general practitioner. For in each of these lesions local treatment alone by the dentist is of no permanent avail.

The first is that form of chronic congestion of the free margins of the gingival followed by parallel white lines of decalcification of the corresponding teeth. These seats of decalcification at a later period become those of hypersensitive dentine and caries.

I have never known this malcondition to permanently yield to any local treatment. Cauterization of the gum margins with silver nitrate yields favorable results, but without constitutional treatment these results are but temporary. I believe the underlying morbid features are those of faulty intestinal digestion and an established acid dyscrasia.

The second morbid condition to which I refer is that of *persistent* caries of the teeth. I know of no diagnostic sign in the mouth that stands forth as such a prominent and oftentimes solitary witness to altered metabolism of human system. I wish to emphasize that I do not refer to ordinary caries of the mouth, but to that type called *persistent* caries. That type observed in pregnant women, for instance, where skill of the dentist avails naught. General softening, crumbling and breaking away of the teeth occurs. I have seen great havoc wrought in girls between the ages of twelve to fifteen, and in one case of pregnancy I have seen a beautiful set of teeth crumble away within the period of five weeks. General prophylactic treatment is here indicated, and to institute such would seem again the duty of the general practitioner.

Lastly, I approach that neuro-atrophic condition, sometimes characterized by much infection and inflammation, called Riggs' disease. The medical profession has paid but little attention to it as a disease or a symptom. I wish to give it as my experience that this lesion, of which there are several forms, is not a local disease alone, but also a symptom, and that a pleading one, of obscure, morbid, general conditions.

Each patient with Riggs' disease, or pyorrhea alveolaris, etc., etc., needs to have a thorough physical examination made. Such examinations have led to discovery of unsuspected cases of incipient diabetes. For that matter, all nutritive disturbances are prone to betray themselves in the irritation of the dental periosteal tissues.

May I not commend to your earnest attention, therefore, the fact that the mouth is of vital importance to the diagnostician. That several lesions there, lesions of great interest, such as the latter three mentioned, have their etiology yet unascertained and offer a rich field for investigation.

103 State street.

CLINICAL OBSERVATIONS REGARDING THE ACTION OF QUININE EOSOLATE IN MALARIA.[1]

By A. G. CIPRIANI, M. D., of Cagliari, Mendas, Italy.

THE application of quinine compounds in malaria leads to such prompt success that all other medicines are regarded as superfluous. But in spite of the preferences which these preparations have over all other specific remedies, they nevertheless possess some disadvantages, such as producing intoxicating effects after large doses, and not infrequently do disturbances arise after the administration of small doses.

Regarding the various nervous symptoms to be mentioned are cinchonism; partial or total deafness, which may at times be either temporary or permanent; rashes, accompanied by edema, pruritus and finally desquamation. These are all disturbances which may be caused by the administration of even small doses.

Modern chemistry has given us various compounds, such as phenocoll, analgen, chinopyrin and euchinin, which, while they are free from the above mentioned disadvantages of quinine, are hardly more preferable.

The researches of Hering showed that the antipyretic action of phenocoll did not differ much from that of antipyrine and phenacetine, but it was Prof. Albertoni who first called general attention to its pronounced specific action in malaria. Kavig used it in the latter part of 1896 in tertian fever and came to the conclusion that even in mild cases, which quinine would have promptly checked, phenocoll even in large doses and long-continued use exerted only a very mild antipyretic action, but did

[1] Translated for INTERSTATE MEDICAL JOURNAL.

not reduce the number of parasites. He also used in a case of "quartana," analgen in doses of from 0.5–1.5 gm., but obtained absolutely negative results. The parasites not only failed to be reduced in numbers, but remained unchanged up to the twentieth attack. He then resorted to the use of quinine.

Laveran prescribed in the "Hospital di Vale de Grace:"

℞ Quinine hydrochlorate.....3.0 gm.
Antipyrine.....2.0 gm.
Aqua destil.....6.0 gm.

which, on account of its easy solubility, was generally commended. This mixture, however, presented disadvantages from an œsophagus and nose standpoint; produced swellings in the facial skin, and the idiosyncrasies of some persons against this combination was so marked as to compel its disuse. Besides this, the subcutaneous application of this remedy, called "chinopyrine," always caused pain at the injection point, which would last for about one week.

Von Noorden first introduced euchinin into therapeutics, and it was afterward used by many practitioners in the various forms of malaria in somewhat larger doses than quinine. Many consider euchinin as being superior to quinine, and I also observed in numerous cases in which I used it that it did possess advantages over quinine. The euchinin lengthened the afebrile period, but in severe cases it would hardly answer to suppress the infection. Besides the preparations already mentioned, many other so-called antimalarial compounds have been put upon the market, only to disappear in a short time.

The eosolate of quinine being at my disposal, it remained for me to see whether this preparation possessed advantages over the other quinine salts. The results of the clinical trials proved satisfactory beyond all expectations, inasmuch as it combated successfully where the quinine had formerly caused functional disturbances, or was perhaps not borne at all.

The importance of this, my publication, will be even more apparent when we bear in mind that I discarded all cases of a mild form and selected only such cases as had failed to show any improvements, or only a partial improvement, while under treatment with the other quinine preparations. The eleven cases which I enumerate may be classified as follows: First, subcontinual fever; second, intermittent; third, tertian; fourth, quartan.

CASE 1.—Woman, aged twenty-nine. Subcontinual since beginning (September). Temperature up to 104° F. Chill. Spleen tumor. Quinine for ten days. Four days analgen without success. On September 18th, 1.0 gm. quinine eosolate in three doses. Next day the same. Temperature reduced. Cured.

CASE 2.—Young man, aged nineteen. Suffering with malaria since May. Febris subcontinual. Was treated until August with the general remedies without success. From September 1st to September 7th, in-

clusive, administered 6.0 gm. quinine eosolate. Daily 1.0 gm. Temperature reduced. Cured.

CASE 3.—Man, thirty-two years old. Febris quotidiana. Until now treated with quinine, phenocoll, euchinin and chinopyrine. After taking six days' treatment with quinine eosolate, he was cured.

CASE 4.—Girl, aged five years. Quotidiana. Gave euchinin fifteen days. The attacks became less severe, but did not disappear entirely. The spleen tumor remained. After seven days' treatment with quinine eosolate, daily dose 0.5 gm., a cure was effected.

CASE 5.—Boy, aged four years. Quotidiana. After unsuccessful treatment with quinine sulphate and euchinin, was given daily 0.4 gm. quinine eosolate for nine days, when a cure was effected.

CASE 6.—Man, aged thirty. Quotidiana. Very large spleen tumor. Was treated daily with 1.0 gm. quinine eosolate for eight days, when fever disappeared. The spleen was hardly palpable.

CASE 7.—Man, aged twenty-three. Suffered with malaria for two months. Tertian type. Took and repeated analgen without success. The smallest doses of quinine produced functional disturbances, whereasa daily dose of 0.75 gm. quinine eosolate was administered without causing any disturbances, and effecting a cure within twelve days.

CASE 8.—Man, aged fifty years. Tertian. The first attacks began in September. From October 1st I commenced daily treatment with 1.0 gm. quinine eosolate. After three days fever was entirely gone.

CASE 9.—Man, aged forty years. Quartana. Taken sick August 25th. Tried various quinine preparations without success. From October 10th administered in twelve days 8.0 gm. quinine eosolate. Cured.

CASE 10.—Man, thirty years. Taken sick beginning of August. Very severe neuralgic pains. Tried electricity, massage, potassium iodide. Quinine was not well borne by the system, therefore gave quinine eosolate. For the following two days in 0.5 gm. doses, and later 0.75 gm. doses. After ten days' treatment the rheumatic pains had entirely disappeared.

CASE 11.—Farmer. Had attacks of fever since beginning of May without treatment. From the beginning of September he complained of drowsiness and rheumatic pains. Antirheumatics, bromides, iodides, massage and electricity without success. Quinine acted, but was not well borne, as the smallest doses produced deafness. I then began administering quinine eosolate, first in 0.25 gm. daily doses, then 0.75 gm. This was taken by him without causing the least disturbances. After ten days' treatment he was entirely cured.

From these observations it will be seen that quinine eosolate is indicated in all the various forms of malaria; and as it is perfectly harmless even if used for any length of time, it is therefore to be preferred to all the other quinine salts. As an analgesic and sedative it is also useful in the treatment of the nervous disorders attendant upon malaria. It frees the

sensorium, and leads to a state of health that is obtained from no other remedy. Appetite soon returns, and the duration of the disease is cut short.

In complicated forms of malaria it is preferable to all other quinine preparations, owing to its analgesic action and since it leaves no unpleasant after-effects. Under its action the spleen tumor disappears entirely in recent and mild cases; in severe and chronic cases it is greatly reduced. Just as other quinine salts, it develops its full action only after several hours. Notwithstanding its sparing solubility it is well borne by the system, and produces neither nausea nor vomiting.

Its bitterness increases the flow of saliva, as well as the gastric juice, and checks fermentation in the stomach. For this reason it assists the digestion of starch and albuminates, thus releasing them from the system during the period of disturbed digestion caused by the fever. Its secretory and anti-fermentative action is also produced in the intestines, notwithstanding what it may have more or less in common with other quinine preparations. It has the advantages, however, over these preparations, in that it prevents entirely the cerebral phenomenæ (somnolence cinchonism) and respiratory and circulatory disturbances.

To sum up, I may say that quinine eosolate is perfectly harmless, and while possessing all the specific actions of quinine, is entirely free from all its disadvantages. Therefore I consider it a valuable acquisition to therapeutics, and would heartily indorse its use in all the various forms of malaria.

HYDRAGOGIN IN DROPSY.

By E. TUTSCHULTE, M. D., of Newark, New Jersey,
Home Physician German Hospital.

HYDRAGOGIN is a pharmaceutical preparation presented to the last German Congress for Internal Medicine by Dr. Goldberg, of Berlin, who warmly commended the remedy, basing his statements on a clinical experience extending over a number of years.

This preparation was first brought to my notice about one year ago, and the writer decided to give it a trial as a therapeutic agent in dropsical conditions, all forms being included, whether the etiology was cardiac, pulmonary or renal, or dependent upon obstruction to the normal flow of the blood and lymph through the vessels and tissues, arising from various other causes. Theoretically, this remedy must be assumed to act as a diuretic as well as a cardiac tonic, since it contains both digitalis and strophanthus; fifteen drops of hydragogin contain about one and one-half minims tincture digitalis, two and one-half minims tincture strophanthus, also scillipicrin and scillitoxin, which are the active principles of scilla maritima. Besides

these there is present, probably as its most efficient ingredient, oxysaponin, an extract from herniaria glabra, which occurs as a gray amorphous powder with a pungent, irritating odor. Thus far but little is known of this substance, and more extensive investigations into its properties and physiological action would certainly prove interesting and possibly may lead to a still more efficient use of the drug. The dose of hydragogin is five to fifteen drops given every two hours and oftener. When necessary, it should be pushed until its full physiological effects are evident. Its administration should then be stopped entirely for a brief period, and treatment then resumed with small doses at long intervals, say five to ten gtt. t. i. d.

I have used this remedy in the past year on about ten patients, that having been the total number of appropriate cases which has come under my observation. Commencing with a small dose, five gtt. every two hours, this was increased gradually until the patient was getting fifteen gtt. every two hours, without obtaining any disagreeable symptoms, such as headache, nausea and vomiting. In only one case a patient complained of being slightly nauseated, but after ceasing its administration for six hours, I was enabled afterwards to again give the drug the same way without any return of such overaction. With the exception of three cases, very satisfactory results were obtained. I wish to state that all, or mostly all, of the older remedies of any use in these conditions were tried beforehand, but with little or no results.

The first of my series of cases was a woman, Mrs. M. T., forty years of age, who states in her previous history that within a radius of fourteen years she had four attacks of acute articular rheumatism. She was admitted to the hospital on July 30, 1900, complaining of intense headache, dizziness and dyspnœa; temperature on admission was 100,6° F. (rectal), pulse 90, and respiration 32. Physical examination showed both lower limbs enormously œdematous, and abdomen distended with fluid (ascites). Examination of heart showed that organ to be at fault. It was markedly enlarged, being in a state of acute cardiac dilatation with murmurs at both apex and base, as a result of chronic endocarditis. Urine was examined from time to time and found to be normal. Patient had been voiding very little urine in the last week, about nineteen ounces in twenty-four hours. She was immediately put on diuretics and salines, such as the salts of potash and infusion digitalis, Rochelle salts and calomel. This treatment was continued for four days, but with very little result. I did not think it advisable to use the hot air baths to cause diaphoresis, on account of the weak condition of the heart. The patient was then put on hydragogin, beginning with five-drop doses every two hours for six doses; then, as patient stood it very well, this was increased to ten gtts. every two hours. In the first twenty-four hours after using hydragogin, the patient's general condition was somewhat improved. The amount of urine passed was thirty-one ounces. All next day and through

the night I kept on with this method, and was very much relieved to see that in the next twenty-four hours the total urine passed was one hundred and two ounces, and that the patient was improving markedly. The œdema in face had disappeared and had diminished in the lower extremities, the heart's action was getting stronger, and patient was breathing easier and had little or no headache. In fact, the patient was improving so much under this treatment that all thought of ultimate tapping was discarded. In five days after using this remedy, the fluid in abdomen and œdema of the extremities had practically disappeared and she was voiding from seventy to one hundred and five ounces of urine in twenty-four hours. I need hardly say that she made a good convalescence, and in four weeks was able to get about.

Again, in another case of different causation, I was induced on account of the good results obtained in the above instance to try it. This patient was a man, C. O., forty-three years old, a brewer by occupation, with a history of being a heavy beer and whisky drinker. He was admitted September 5th suffering from acute parenchymatous nephritis. He complained of dyspnœa and intense headache, and was unable to walk on account of the swollen condition of the lower extremities. He was passing about twenty-four ounces, sometimes as low as eleven ounces of urine in twenty-four hours. Urine examined and all evidences of acute nephritis found present. Heart, lungs and liver normal. He was at once put on infusion digitalis with acetate of potash every three hours, also calomel and salines, and after forty-eight hours there was no improvement, so I resorted to the use of hydragogin, giving it the same as in the other case, and the patient began to improve at once, so that at the end of two weeks the albumen, casts and œdema had all disappeared and I allowed him to sit up in a chair. In five weeks' time the patient was discharged. The diet I have been accustomed to give in these cases consisted of milk and water, and oatmeal gruel; nothing else. In the three cases with no apparent results, I had tried nearly all the remedies indicated and also hydragogin. These cases were an old-standing atrophic cirrhosis of the liver and two carcinomata, one of the liver and one of the omentum. These three cases died eventually, but the other cases all made good improvement under its use.

In conclusion, I wish to state that in my experience hydragogin has proved itself a most pronounced diuretic, prompt in its action, but without gastric or other disturbances. The preparation certainly deserves further trial and study.

An Explanation of the Function of the Pineal Body.—The pineal body (sometimes called a gland) now named the epiphysis was regarded by Descartes as the seat of the soul. Descartes, however, has been dead for about three hundred years, and our ideas concerning the soul have changed very considerably. The pineal body has recently been discovered to be a developmental remnant of a third eye, the elements of which have been distinctly traced in the New Zealand reptile, the sphenodon (or hatteria) by Mr. Baldwin Spencer. This pineal body occurs in all vertebrates, except the very lowest. In the hatteria it reaches the skin on the top of the head, and retains distinct traces of an eye-like formation—for instance, a complex retina. As the same vestigal hint of eye-structure has now been observed in several lizards, many naturalists are convinced that the pineal body in all animals is, in reality, the remnant of a parietal eye—an upward-looking sense-organ.

The Neglect of the Doctrine of Heredity by Teachers.—Professor Smedley, of Chicago, has investigated the height, weight, vital capacity, nervous energy and strength of some seven thousand children in public schools. His conclusion, as reported, follows: "The whole physical, mental and moral future of children depends upon their training during the early adolescent period. It is then they show the greatest aptitude for learning. With the departure of the plastic period their characters have been formed."

From the first part of this opinion, one would suppose that heredity plays no part in "the physical, mental or moral future of children," and that all of us are born with equal mental—and physical—capacity. Oliver Wendell Holmes must have been mistaken when, in referring to certain defects, he said: "The doctor should have been called in a hundred years ago." Huxley, in attaching so much importance to heredity and in insisting that all men are not born with equal mental powers, must have been talking upon a subject of which he had no knowledge. It seems strange that the leaders of scientific opinion consider heredity a paramount factor in man's physical make-up, while many teachers ignore it altogether. To anybody who uses his eyes, the truth of the doctrine of evolution in general, and of the hereditary character of almost all congenital variations, is proved every day. Assuming that Mr. Smedley has

been correctly reported, he must be singularly unfamiliar with biological science, for the evidence that the mental equipment of a child begins before its birth is overwhelming.

The Injurious Substances in Whisky and Tobacco.—According to the *Lancet*, it has been shown that "comparatively speaking at any rate, fusel oil is not the injurious constituent of whisky. It is rather the aldehydes, the partly oxidized alcohols in whisky, which are mischievous, and the chief among them is furfurol. Old matured whisky is free from furfurol, while freshly made or unmatured spirit contains a marked amount of this constituent, the source of the throbbing headache of the heavy drinker." It is very doubtful whether this piece of information adds anything to our knowledge. Ethyl alcohol, when taken in anything but quite small quantity, is injurious to mankind. This much is known for certain. The more alcohol the liquid contains, the more serious are the results of drinking it. The amount of aldehydes, fusel oil or ethers contained in the various drinks is of little moment, as compared with the percentage of ethyl alcohol. No physiologist has ever told us that "old matured whisky" will not make a man drunk!

The *Lancet* also states that the amount of nicotine in Virginia tobacco does not often exceed one per cent., and that much of this is destroyed by the combustion. But new products are formed, consisting of tobacco tar oils, which are poisonous. "The composition of these oils indicates that they are very closely related to nicotine, and their chief constituent is pyridine, and it and its 'relatives' are responsible for the violent headache, trembling and giddiness following excessive smoking. The degree of toxicity of the smoke, however, probably depends largely upon the completeness of the combustion."

The *Lancet* eventually arrives at the conclusion that the cigarette is the least injurious form of smoking, that the pipe comes next, that the cigar is the most injurious of all.

Liberty for Lunatics.—In the French *Journal des Debats*, Dr. Toulouse, a well-known alienist, writes in favor of liberty for lunatics, on the same terms as for mentally sound persons. The great argument for locking up lunatics is that unless they are put out of the way of mischief, they will commit actions that would be considered crimes if committed by sound-minded persons. Dr. Toulouse believes that lunatics, if free, would not supply a larger percentage of mischief-doers than other classes of the population. "If a lunatic is suffering from certain kinds of derangement, he will very soon break the law. Then it will be lawful to lock him up, but if he escapes all the pitfalls of our civilization, why rob him of his citizen's rights?" asks the French alienist. The answer is that harmless lunatics and feeble-minded individuals are at large all over the United States; but the policy of locking the door after the horse has

been stolen—of depriving the insane of their liberty when they have done some injury to the community—is not consistent with ordinary principles of justice to the majority of the people.

Life Insurance and Drinking.—The newspapers of Philadelphia have lately printed the following statement, which is said to be a rule promulgated by Dr. George Willard, the medical director of the Metropolitan Insurance Company: "Accept the habitual drinker and those whose work is such that alcohol alone can replenish the drains on the system. Reject the periodical drinker, the man whose system is demoralized by occasional sprees."

It is difficult to believe that any physician ever said this, but it is still more difficult to believe that Dr. Willard asserted that "to certain classes of men whisky is a necessary food." Apart from any question of whether alcoholic drinks are foods or not, the eminent English neurologist and surgeon, Victor Horsley, has recently shown that even moderate drinking is probably injurious to most individuals. His lecture may be found in the *Lancet* of May 5, 1900, p. 1271. In the light of modern investigation, it is not correct to say that any man in ordinary health needs whisky as "a necessary food." A man who requires stimulants every day is very sick, and a very bad risk for an insurance company. Any one contemplating the purchase of life insurance should carefully avoid any company which insures persons who drink more than four glasses of beer—or its alcoholic equivalent—every day. The ordinary American lager beer contains between three and four per cent. of ethyl alcohol.

Dr. Willard should hasten to explain or to repudiate the statements attributed to him by the Philadelphia *North American* and other newspapers. That he proposes to insure men as desirable risks who take half a dozen "drinks" of whisky each day is incredible.

A Carnivorous Parrot.—With one exception, all parrots are vegetarians. This exception is the strange New Zealand lory, the kea, which alone among its kind has developed the habit of eating flesh. From a psychological point of view the case is interesting, because it is the best recorded instance of the growth of a new and complex instinct under the eyes of human observers. The kea, before the arrival of the white man in New Zealand, was a mild-mannered fruit-eating or honey-sucking bird. But as soon as sheep-stations were established, these degenerate parrots began to acquire a taste for raw mutton. At first they ate only the offal that was thrown out of the slaughter houses, picking the bones as clean of meat as a dog or a jackal. But in course of time, as the taste for blood grew, a new and debased idea entered their heads. If dead sheep are good food, are not living ones? The keas answered this question in the affirmative, and proceeding to act upon their conviction they invented a truly

hideous mode of operation. A weak member of a flock of sheep is attacked, usually by a number of birds, and almost always after dark, the poor animal being worried to death by the combined efforts of the parrots, some of whom perch themselves upon its back and tear open the flesh, their efforts being to reach the kidneys, which they devour at the earliest possible moment. As many as two hundred ewes are said to have been killed during one night upon a single sheep "station." Of course the New Zealand farmer resents the attacks of the keas, and as the result an attempt is being made to exterminate these carnivorous birds, and the probability is that their existence will be limited to a few years.

A New Food Made from Milk.—Plasmon is a new creamery product, and is made both in Germany and in England from milk after the butter has been extracted. The name is taken from a Greek word, meaning "that which gives form." The fresh milk as it comes from the cow is put into a separator, all the cream being removed by this method. The separated milk is afterwards treated so as to coagulate all the proteids; and this coagulated mass is then kneaded and dried at a temperature of seventy degrees Centigrade under an atmosphere of carbon dioxide. When perfectly free from moisture, the plasmon is completely soluble in hot water.

Concerning the food value of this new product, it is claimed that one ounce of the powder is equal to three and a quarter pounds of the finest beefsteak! This means that it will take the place of between eleven and twelve pints or milk. The German government is using it in both the army and navy, and the department for the investigation of food for the troops has praised it highly as a portable and concentrated nutrient.

A New Theory of Longevity.—A new theory of longevity has lately made its appearance. "A man has a definite number of waking hours allotted to him," says the originator of the most recent idea, "and the fewer he uses up the longer will his life last. If, therefore, he is content to sleep for most of his days, there is no reason why he should not live for two hundred years." He adduces the case of the negroes as an illustration. The chances are that the only truth in this theory is the well-recognized fact that less than eight hours sleep is not sufficient for most mortals, and that those who habitually take less shorten their lives by so doing. But even if this novel elixir of life were what it claims to be, one may doubt whether the prescribed existence would be worth living. To our mind, the allotted three-score and ten years, without excessive sleep, would be preferable.

A Minnesota Giant.—According to good authority the biggest living man (in stature) is Lewis Wilkins, who is now in Europe. He was born on a farm near St. Paul, Minnesota, in 1874. When only ten years old he measured six feet in height, and now has grown to the tremendous

height of one hundred and seven and one-quarter inches—three-quarters of an inch less than nine feet—and weighs three hundred and sixty-four pounds. No information is given as to his general characteristics, mental or physical, but we hope to obtain these, and to return to the question of gigantism at some future time.

Leprosy Increasing in France.—Leprosy was scarcely known in France twenty years ago. It is now very prevalent in Brittany and Savoy, which, according to a recent report made by Dr. Besmier, of the Academie de Medicine, are now recognized leprosy centers.

An Instrument for Predicting the Weather.—A novel method of predicting the weather has been discovered by Professor A. Tomasina, a French *savant*. He uses for this purpose an instrument which he calls an "electrical radiophone." By means of it he can ascertain the exact nature of the electrical currents in the air at any moment, as the apparatus is fitted with a clock-work arrangement, which registers the precise quality of each current. There are also several bells in the instrument, each of which is affected by a particular current. If this is strong, the bell gives a loud ring; if it is weak, only a slight tinkling is heard. Professor Tomasina claims that his invention will be found of great service at sea, because it will prove a reliable guide to weather conditions. The present method of forecasting the weather on the ocean is of little use, except when the ship is near the shore.

Brunettes More Susceptible than Blondes to Malaria.—It is a curious incidence that brunettes are known to be more prone to attacks of malaria than blondes. This has been frequently noted by practitioners of our Southern States, who are probably more conversant with malaria in its protean manifestations than any other class of medical men in the world. In explanation of this, some have offered the theory that brunettes are more frequently attacked by the plasmodium malariæ than blondes because their blood offers to the rapacious parasite more "nourishment" than that of blondes, by virtue of the increased hemoglobin of the blood. How far this theory agrees with fact, it is difficult to state. No complete statistics are at hand on this subject as to whether the blood of brunettes really contains more hemoglobin than that of blondes. We know, of course, that there is an excess of pigment cells in the epithelial surface of brunettes over that of blondes, but whether this excess of pigmentation goes with excess or hemoglobin has not yet been corroborated by scientific research. Until this research is at hand, we must accept this observation of the preponderance of malarial infection in brunettes as a clinical fact but without physiological explanation.

VIENNA LETTER.

The courses in the university are over, and all the scientific bodies have adjourned for the summer. The K. K. Gesellschaft der Aerzte held its last meeting on June 7th. A most interesting series of experiments was reported by Docent Dr. Emmerich Ullmann. He undertook to make transplantations of different parts of the intestinal tract—*i. e.*, he took young pigs, laparotomized them, dissected off flaps of the large and small intestine and stomach, leaving, however, the small tongue-shaped end of the flap *in situ*, and sewed the flaps into the gut in such a manner that they remained in continuity in their original situation. In other words, a flap from the large intestine, even when transplanted into the small intestine, was still in continuity at one end to the large intestinal mucosa. And so the flaps were transplanted from the large intestine into the stomach, from the stomach into the large intestine, etc. The animals were killed at varying periods—at the latest three months after operation. It was found that in all cases the transplanted flaps had united in their new positions. However, the flaps which had been transplanted into the stomach had shrunk to one-fourth their original size, and showed ulceration in all cases. The result of this series of experiments is rather discouraging, in view of the fact that the practical utility of such a procedure in man would come especially from the transplantation of intestinal flaps into the stomach, but the ulceration as seen in these animal experiments might be expected to occur in man as well. However, these experiments serve to dispel the erroneous doctrine hitherto in vogue, that each part of the intestine is endowed with a certain power of protecting itself against self-digestion.

Another interesting paper was that read by Dr. Gabriel Nobel on the Pathology of Syphilitic Conditions of Extra-Parenchymatous Lymph Vessels. He found that in cases of lymphangoitis dorsalis penis and syphilitic sclerosis of the lymphatics the point of origin lies in the superficial lymph ducts. They show a characteristic proliferation of their intima leading to obliteration, accompanied by infiltration of the adventitia. The larger blood vessels are never involved in the formation of syphilitic cords. The author found the bacillus of Ducrey, the supposed specific cause of syphilis, in the exudate which covered the intima of the lymphatics.

The Obstetrical and Gynecological Society adjourned on the 18th of June. There was a demonstration of placentæ, ruptured ectopic pregnancy tubes and a fibroma of the abdominal walls. But of more importance than the chronicle of medical society adjournments is the recent appearance of an atlas upon the Topography of the Ureters in the Female, published by Braumueller, of Vienna. There are some thirty-two excellent chromo-lithographic reproductions of this region, which is of so much

importance to the gynecologist, together with an excellent text description of the same. Both the normal and the pathological conditions of the ureter are considered. The authors of this atlas, Tandler and Halban, deserve great credit for their work, which meets a long-felt want.

I should like to state that here in Vienna, especially in the clinic of Professor Schauta, the paravaginal incision for extirpation of the carcinomatous uterus is being employed. It was first advocated by Schuchardt in 1894. This method of total extirpation of the uterus per vaginam gives an excellent opportunity both to freely expose and to extirpate the parametrial tissues.

The statistics given by Schuchardt at the last Congress of the German Society of Obstetrics and Gynecology at Giessen in 1901 are impressive, and lead us to think that this operation has a good field of usefulness and will not soon die out. This operation bids fair to do away with the usual routine method of total vaginal hysterectomy, and even compares favorably with the radical abdominal operations, such as that advocated by Ries or that performed here in Vienna by Wertheim.

Vienna, June 19, 1901. DOCENT DR. JULIUS NEUMANN.

Shall We Give Quinine in Malarial Hemoglobinuria?—This mooted question is discussed both *pro* and *con* by our medical brethren. It is a significant fact, however, that the practitioners of this country are almost a unit in declaring that quinine is not only not indicated in malarial hemoglobinuria, but is positively dangerous to the patient. A few years ago Dr. Bransford Lewis, of St. Louis, undertook to collect all the reported cases of malarial hemoglobinuria occurring in this country, and found that the consensus of opinion is that in all cases where quinine was used in malarial hemoglobinuria, *the patient died*, but that in all cases where other measures were used, the patients usually recovered. On the other hand, the reports that come to us from India, where this condition is called "black-water fever," show that the medical authorities there use quinine, and successfully, too. It may be that the climatic conditions make the difference thus noted. However, it is expedient for us, living here in America, to follow the experience of those among us and not to use quinine in the hemoglobinuria of malarial nature. Confronted with a case of this kind, the practitioner should bend his energies to use strictly an eliminative treatment: kidneys, skin, bowels and all secretions should be encouraged to throw out the toxic products which have been retained. With such an eliminative course, and with a tonic course afterwards of arsenic, iron and nux vomica, the efforts of the practitioner will be crowned with success.

MEDICAL AND SURGICAL PROGRESS.

In future issues of the INTERSTATE will appear reports on Medicine, Surgery and the different specialties. Each department will be edited by an authority, and will give a comprehensive review of the scientific work done during the preceding month.

GYNECOLOGY AND OBSTETRICS.

Edited by HUGO EHRENFEST, M. D., Consulting Gynecologist, St. Louis City Hospital.

La Grippe During the Puerperal State, and its Differentiation from Septic Puerperal Infection.—(M. Stolz, Graz, Austria.)—Within three weeks forty cases of la grippe were observed *in puerperis* at the Maternity of Graz. It was of the greatest importance, from a practical standpoint, to make the differential diagnosis from septic infection as soon as possible. In many cases great difficulty was offered to this task, as the symptoms often were those of sepsis. The following points have been found of value in arriving at a proper diagnosis:

In cases of la grippe the pulse-rate increases proportionately with the temperature—may even stay behind, as a consequence of the *bradycardia*, which we normally find during the puerperal state. Even at a high elevation of the temperature the pulse-rate never passes 100 to 120. The diagnosis of la grippe is rendered probable if there is an epidemic of this disease, if the characteristic bacilli can be found, if there are distinct local symptoms in the lungs, if the pulse is slow even in higher elevations of the bodily temperature, if a recurrence can be observed in the course of the disease. Symptoms like stinking discharge, subinvolution of the uterus and tenderness of the abdomen are not liable to secure the diagnosis of septic infection, as they are often observed in cases of la grippe. Stolz, reviewing his own observations, refers to the experience of Amann, Moeller, Gottschalk, etc., who found that deficiency of the involution of the uterus, hemorrhages during the puerperal state, decomposition of the lochial secretion, predisposition to infection of the pelvic contents, fast development of benign and malign growths, unfavorable influence upon the course of the puerperium, etc., are the more frequent sequelæ of an infection with la grippe during the puerperal state.—*Monatschr. f. Gbts. u. Gyn.*, June, 1901.

The Value of Antipyrin-Salol as a Hemostatic.—F. Spaeth, Hamburg, reports the results he obtained in seventy cases of uterine hemorrhage with this treatment. The method was inaugurated by Labadie-Lagrave, and consists in the following: Equal parts of antipyrin and salol are mixed and heated in a test-tube until the liquefying mixture

shows a brownish color, forming vapor of a sweetish odor. A thin sound armed with cotton is dipped into the hot fluid, and then as exactly as possible the cavity of the uterus, cleansed previously, painted. This procedure is to be repeated about two to three times in an interval of two to three days before favorable effect can be expected. Out of seventy cases, this method entirely failed only in six; in twenty-five cases both the immediate and the remote results were extremely favorable; in seven cases an excellent immediate effect was followed by recurrence of meno- or metrorrhagia at a later date. Most favorable were the results obtained in hemorrhage consequent to subinvolution of the uterus after confinement or abortion.

In summing up his experience, Spaeth concludes: "The melted mixture of antipyrin and salol is an excellent local hemostatic in uterine hemorrhages. Its effect seems to be based upon an irritating value which excites contraction of the uterus; therefore it gives good immediate and lasting results in all hemorrhages caused by atony of the uterine wall. If there is an excessive hypertrophy of the endometrium (endometritis glandularis or formation of polypi, etc.), a later recurrence of the hemorrhage is probable."—*Monatschr. f. Gbts. u. Gyn.*, 1901.

Indications and Limitations of the Vaginal Operation in Pelvic Diseases in Women.—(J. Riddle Goffe, New York City.)—Any operation that can be done as safely and satisfactorily for the patient, by the vaginal route as by the abdominal, should be done by the vaginal method. The dangers are less, the convalescence is smooth and the after-treatment simple, the patient being relieved of annoyance of stitches, adhesive plaster, bandage and dressings; there is no visible scar to remind her continually of her experience; and, above all, there is no danger of hernia. Concerning indication and limitation for this method Goffe says: "The only justifiable radical operation for uterine carcinoma is vaginal hysterectomy. When fibroid tumors are small, no matter in what part of the uterus they may be located, the vaginal incision affords opportunity for their complete and satisfactory removal. The limit for vaginal operation in fibroma is given in cases in which the tumor is sufficiently large and so located that the patient presents the appearance of a woman at the fourth or fifth month of pregnancy."

Cases of salpingitis and ovarian abscess are best treated through the vagina. If the disease involves the appendages of one side only, the other appendages being amenable to conservative work, then the pus is evacuated, the diseased appendages removed, and such conservative work as may be indicated done upon the remaining organs. If the appendages of both sides are hopelessly diseased, vaginal panhysterectomy is immediately decided upon, and the entire pelvis is relieved of all diseased tissue. Its ideal application has the vaginal method in the cure of displacements

of the uterus, whether they be simple or complicated by moderate disease of the appendages, with adhesions.—*American Medicine*, April 13, 1901.

An Analysis of my Vaginal Ablations in One Hundred and Eighty-One Cases of Pelvic Inflammation and Uterine Fibroid Degeneration.—(W. R. Pryor, New York City.)—The results attained by Pryor in these one hundred and eighty-one cases of vaginal panhysterectomy are remarkably good. He has cured eighty-three per cent. of all those who have applied to him, and that without mortality. In cases of pelvic inflammation he finds the indication for the radical operation when there were repeated acute attacks; when ectopic pregnancy of one side is associated with inflamed adnexa of the other; when adhesions and occluded tubes, after general peritonitis, are found combined with evidences of salpingitis; when hydrosalpinx of both sides is associated with many adhesions; finally, in all cases of genital sclerosis. When the adnexa of both sides are so damaged as to require removal, the uterus is thereby rendered not only a useless organ, but remains a mischievous one. The recent advocacy of conservative and complicated operations upon pus foci, necessitating, as they do, the use of much ligature and suture material, finds no response in him.

In regard to the treatment of fibroids, he never operates unless disagreeable symptoms are present. If he operates, he prefers the radical operation, either per vaginam or abdomen.

Reviewing the results, he concludes that the greater proportion of operations now performed through the abdomen could more easily and with better results be made through the vagina. He advocates vaginal operation not only because of the absence of risk, but because he is convinced that the convalescence after it is more smooth and free from complications than after laparotomy.

[Giving myself the preference to the vaginal route in gynecological operations, I think Pryor goes too far in declaring this method as particularly applicable in intraligamentous and retroperitoneal fibroids. At least, these cases offer especial difficulty in controlling hemorrhage.—ED.] —*American Medicine*, April 27–May 4, 1901.

Complete absence of milk secretion immediately after delivery was observed by Keim (Paris) in a woman of thirty-three years of age. She was suffering from hysterical fits since her fifteenth year, and presented at the time of examination all the characteristical symptoms of hysteria. The mammæ were of normal size and consistency, not the slightest secretion of milk. She claims that there was also an absolute absence of enlargement of the breasts and secretion of milk at the foregoing ten pregnancies, and that her mother, who was pregnant six times, showed the same abnormality. Complete lack of milk secretfon after de-

livery is a comparatively rare condition; usually we observe agalactia during the course of nursing.—*Progres Medical*, April 27, 1901.

The routine examination of women following confinement is recommended by John Cooke Hirst (Philadelphia). The examination should be conducted about six weeks after the date of delivery. At this time, under normal conditions, the pelvic organs have returned to about their normal size and state. The objects of investigation should be: the presence and character of any vaginal discharge, the condition of the perineum and pelvic floor, the condition of the cervix, the position and degree of involution of the uterus, the condition of the broad ligaments, tubes and ovaries, and finally a specular examination of the vagina and portio.

If some abnormal condition has been found, the patient should be immediately advised to have the proper treatment. Thus it may become impossible for a patient in going to another practitioner for some pelvic trouble, to blame the first doctor for negligence in the manner in which he conducted the confinement.—*International Medical Magazine*, March, 1901.

Varicocele of the Broad Ligament.—John B. Shober (Philadelphia) adds one more case to the so far reported two cases of this condition. Remarkably enlarged veins, situated immediately below the fallopian tubes, between the layers of the broad ligament, form an elaborate plexus, which anastomoses freely with the uterine plexus. They are more frequent on the left side. The most characteristic symptom is a sense of weight and fullness in the pelvis, especially noticed at the sacrum or perineum. The diagnosis is made by a consideration of the symptoms and the physical examination. The dilated and tortuous veins can be felt as a yielding, compressible mass, which may reach the size of a hen's egg. The treatment is conservative or operative, depending upon the complications associated with it: as subinvolution of the uterus, extensive laceration of the cervix extending into the broad ligament, displacement of the uterus often associated with inflammatory changes of the appendages, chronic constipation, etc.—*Am. Jour. of Obstetr.*, May, 1901.

The Age of First Menstruation in the United States.—(G.T. Engelmann, Boston.)—Over 10,000 observations as to the time of first menstruation of American-born women gives him ample material for an authoritative solution of the question. The American-born are more precocious than the women of other countries in the same zone. Fourteen is the age of puberty in the United States and Canada, 15.5 in the temperate zone of Europe. Racial characteristics fade rapidly away. The age of puberty in Germany is about 15.5 to 16; for the girl born in America of German parentage, 14.5. Mentality, surroundings, education and nerve stimulation stand out prominently in this country as the factors which determine precocity.—*Jour. A. M. A.*, June 8, 1901.

The Influence of Rise of Body-Temperature Upon the Milk Secretion.—(Budin and Perret, Paris.)—In twenty-nine cases of febrile diseases, as la grippe, lymphangitis, infection of the genital organs, etc., the mothers continued nursing their babies. The authors were not able to observe any evil effect on the babies, and conclude that the miik of feverish mothers does not seem to be materially changed in quality. They think it not necessary in such cases to discontinue nursing, as usually done, a point of remarkable importance from a practical standpoint.—*Progres Medical*, May 25, 1901.

The Operative Treatment of Uterine Cancer.—J. Pfannenstiel (*Centralblatt fuer Gynaekologie*, April, 1901) gives a concise review of the results of the different kinds of operative treatment of uterine cancer:

(*a*) *High Amputation of the Cervix in Cases of Carcinoma of the Collum Uteri.*—This operation is justified in cases of carcinoma of the portio in an early stage, as has been proven theoretically by von Franque and Puppel, and clinically by Hofmeier, Winter and others, who have shown that in 27.6 per cent. there was no sign of return five years after this operation. Pfannenstiel, however, is not in favor of this conservative procedure. He thinks that in these cases of early stage the panhysterectomy is a comparatively easy operation; that in all these cases the endometrium is more or less diseased; that in a disease of so dangerous a character, preserving the capability of impregnation must not be a desirable aim. High amputation may be a shift where other conditions (age, general diseases, etc.) contra-indicate a larger operation.

(*b*) *Vaginal Panhysterectomy.*—Out of 116 cases operated by Fritsch ten died in consequence of the operation—*i. e.*, 8.62 per cent. On account of a better technique there was, out of the last 42 cases, only one death. Most of the recurrences developed in the first year after operation. After the fifth year no development of a recurrence has been observed. Free of a recurrence were: 6 years after operation, 14 women; 7 years after, 8 women; 8 years after, 3 women; 11 years after, 1 woman; 13 years after, 1 woman. Pfannenstiel performed vaginal panhysterectomy on account of carcinoma 93 times, with three deaths—*i. e.*, 3.2 per cent. of mortality, which is about the average rate according to the reports of other authorities. Of these operated, women were free of recurrence: 6 years after operation, 6; 7 years after, 5; 8 years after, 4; 9 years after, 2; 13 years after, 1. Carcinoma of the corpus offers a far better chance. Out of the cases of Fritsch and Pfannenstiel, none developed recurrence. Of the cases of carcinoma colli, those with cancer of the cervix give a better prognosis than those of the portio. (Recurrence in carc. portio, 61.4 per cent.; in carc. cervic., only 33.3 per cent. Ureters have been wounded during operation twice, the bladder twice.)

(*c*) *Abdominal Panhysterectomy.*—There are three operations of this kind:

1. Extirpation of the uterus alone (Freund).
2. Extirpation of the uterus, parametria and enlarged glands (Veit).
3. Radical operation—extirpation of the uterus, appendages, upper part, if necessary whole vagina, parametria, all glands in the iliac and sacral region in every case, if necessary with resection of the bladder or ureter (Ries, Werder, Koenig, Ricard and Wertheim).

The remote results with Freund's operation are much like those of the vaginal operation. The immediate results are better with the latter operation. Of nine patients operated upon according to Veit, two died in consequence of the operation (22 per cent.), both of peritonitis. In regard to remote results of this operation, he cannot say very much; seven women are alive, two of these already have suffered recurrences; in the other five the result is uncertain, not more than sixteen months after operation.

Radical operation (Wertheim) was peformed but once; the patient died thirty-three days after operation, of *pyelonephritis*. His conclusions in regard to the abdominal operations are the following: The percentage of deaths as a consequence of these operations is exceedingly high. Freund-Veit's operation shows a mortality of about 20 per cent. (reports of Kuestner and Freund); Wertheim's operation of 38.9 per cent.

About the remote results of these more dangerous operations we do not yet know very much, as they have been practiced but a few years. However, the number of recurrences already observed, furthermore, theoretical reflections, do not seem to offer great hope. Not a reform or extension of our operative technique, but an early diagnosis, will better the results.

With satisfaction in different clinics of Germany it has been shown that the percentage of cases brought to the hospital in a still operative stage is continually growing. That seems to be due, firstly, to the fact that the gynecologists always called the attention of the general practitioners and the students to the early symptoms of carcinoma of the uterus; and, secondly, to the habit of making microscopical examination of every somewhat suspect scraping.

Pfannenstiel says, in conclusion, that as long as it is not proven that the more radical operations per abdomen give better remote results, vaginal panhysterectomy ought to be the routine operation.

G. Tizzoni (*La Riforma Medica*, Nos. 57–66) gives an account of the treatment of tetanus with anti-tetanic serum. Tizzoni's serum for tetanus does not possess as high antitoxic value as that of Behring's, but its curative power is greater. He says that the amount of antitoxic units in the serum has nothing to do with its curative powers, which depend upon the variety of substances present which can neutralize tetanus poison. The value of the Tizzoni serum was found not on cases in man, but on experimental animals. The animal of choice is the rabbit.

PATHOLOGY AND BACTERIOLOGY.

Edited by R. B. H. GRADWOHL, M. D., Pathologist, St. Louis City Hospital.

Hemorrhagic Malarial Nephritis.—Dr. James Ewing reported at the American Physicians' Association, an interesting case of hemorrhagic nephritis due to an accumulation of the malarial parasites in great masses in the kidney. Kidney disease due to malaria is not so uncommon in the South as it is in the North, the disease usually taking the form of a diffuse nephritis. This case, however, is rare, inasmuch as its manner of causation was in a mechanical way, rather than a toxic way. Toxic hemoglobinuria in malaria is frequently seen by the practitioners of the South.

Prevalence of Tuberculosis.—The investigation of Dr. Trudeau, has shown that eighteen per cent. of supposedly well people give a reaction to tuberculin. (*Annals of Gynecology and Pediatry*, June, 1901.) The autopsies performed by Councilman, which have revealed the disease in seventeen per cent. of the cases which were supposed to be free from that disease, have confirmed this statement. This means that probably almost one-third of all civilized people are tuberculous. Truly an astonishing proposition! It is also true that post-mortem findings in other places and countries show even a larger percentage of signs of tuberculosis in supposedly well people. In the German institutes of pathologic anatomy one out of three individuals, on the average, show signs of active or healed tuberculosis. Virchow has given the figures, some time ago, as one out of seven, but the writer has seen it in one out of three. Truly this is an alarming picture, and only goes to emphasize the importance of enacting measures looking toward a stamping out of the disease.

Filtration of Water Supplies.—St. Louis has not yet taken steps towards filtering her polluted water. That the water is heavily polluted by sewage has been conclusively proven by the exhaustive investigation undertaken some time ago by Health Commissioner Starkloff. It is now high time for us to begin to filter this water. It seems strange that a St. Louis lay contemporary should continue to shower abuse on the efficacy of filtration, and urge instead the use by the city of water from the Meramec river. This abuse is entirely unwarranted when we consider that the main objection raised by this lay "authority" on drinking water is that by the process of American filtration alum is used which renders the water dangerous. It has been proven long since, by the investigations of Fuller at Cincinnati and elsewhere, that the percentage of alum used in this process is regulated to such a nicety that every particle of it is used up in the process of chemical combination. Filtered water is harmless.

The Visceral Form of Congenital Syphilis in its Manifestations in the Gastro-Intestinal Tract.—Oberndorfer speaks of the visceral form of congenital syphilis, especially its manifestations in the gastro-intestinal tract. In a boy of four months he found a gumma in the liver and a great number of ulcers in the stomach, ileum and large intestine. These ulcers showed microscopically not so much a loss of substance as erosion with a gummatous new growth of tissue. The adventitia of the vessels showed the new formation of tissue, with projections into the lumen eventually leading to obliteration of the vessels.

In going over the literature on this subject the writer found fifteen cases of syphilis of the stomach—six of which were of the congenital and nine of the adult form of syphilis. He also found twenty-five cases of intestinal syphilis which were congenital, and twenty-four cases of the adolescent variety. The lesion began in the majority of cases in the submucosa. There was no relation to the follicular apparatus in this condition. Clinically, nothing pointed to a syphilitic nature of the intestinal trouble.

It is announced that the dates of the next meeting of the Mississippi Valley Medical Association have been changed from the 10th, 11th and 12th of September to the 12th, 13th, and 14th of September. This change has been made necessary because the dates first selected conflicted with another large association meeting at the same place.

The meeting is to be held at the Hotel Victory, Put-in-Bay Island, Lake Erie, Ohio, and the low rate of one cent a mile for the round trip will be in effect for the meeting. Tickets will be on sale as late as September 12th, good returning without extension until September 15th. By depositing tickets with the joint agent at Cleveland and paying fifty cents the date can be extended until October 8th. This gives members an opportunity of visiting the Pan-American Exposition at Buffalo, to which very low rates by rail and water will be in effect from Cleveland.

Full information as to rates can be obtained by addressing the Secretary, Dr. Henry E. Tuley, No. 111 West Kentucky street, Louisville, Kentucky. Members of the profession are cordially invited to attend this meeting.

Those desiring to read papers should notify the Secretary at an early date.

MEDICINE—NOTES ON MALARIA.

The Italian Society for the Investigation of Malaria held its last congress March 23, 1901, under the direction of Prof. Celli.

Prof. Celli spoke of the work which had been done by members of the association in Rome, in hospital and private practice. This work consisted in an investigation into the epidemiology, pathology, therapy and prophylaxis of malaria. Prof. Celli summed up the work in the following words:

1. It can be positively stated that in any district where malaria is prevalent, the Anopheles is also present; but this rule reversed does not hold good. Ross, Grassi, Bignami and Bastianelli affirm that the Culex does not take part in the epidemiology of malaria, while Koch affirms that it does.

2. Any collection of stagnant water can be the breeding-place for the Anopheles. Lakes, like the Lake of Mantua, with practically no outlet, form no exception to this rule. It is incorrect to suppose that the existence of salt or sulphur in a given expanse of water prevents the larvæ of the Anopheles from breeding there.

The Anopheles larvæ die in the maceration fluid on the surface of the water. Rice fields, with stagnant water, or running water even, or even a rice field with the "changing system" or irrigation, are nests for the propagation of the Anopheles larvæ.

3. Geographically, the different varieties of malaria are distributed about equally over the Italian continent. The tertian severe type is found most extensively from the tropics to the Alpine regions. The light tertian type is found more frequently in the north than in the south. The quartan type is the least common type, but is evenly distributed, nevertheless.

4. The quartan, severe and light form of the tertian, have each a special epidemiological circle. The qnartan type has the smallest percentage of recurrences, and appears the last from the standpoint of season. The light form of the tertian type begins first in upper Italy, and, of course, ends first.

5. There are three principal epidemics noticed when one travels from Germany towards the south: that of northern Europe, that of upper Italy, and that of Rome and southern Italy. They differ only in time of beginning, the first to begin being that in the extreme north. There are different types of fever met with, it is true; but that is dependent upon climatic conditions, and hence individual differences. The association has studied epidemics of malaria in the Alpine district, in the central Apennines, and in Calabria.

Dr. Dionisi has studied the pathology of the blood in malaria. He noted changes in the corpuscles of the blood in the veins and smaller

peripheric vessels. This investigation was carried out during the height of the fever, and also later on.

Celli, Panichi and Carducci have devoted their studies to an investigation of the immunity which might be acquired to the poison of malaria, especially working with the specific hæmolysin. They have proven that an artificial immunity towards malaria is best obtained by means of euchinin. Prof. Di Mattei, of Sicily, and others have confirmed this observation.

Lamonoco and Panichi have studied the action of quinine in these cases. A most important finding made by them is their discovery of the great agglutinative powers of malarial blood. By this agency they hope to obtain a speedy and sure means of making early diagnosis in cases of latent malaria.

Prophylaxis is the great field in which the association is working. Celli has already proven that he can protect against malaria, as in the case of the railway employees elsewhere cited. Bartianelli sent artificially infected mosquitos to London, where Manson worked successfully with them.

Through the efforts of the association, pure quinine is to be offered to the people of Italy at a much lower rate than it is ordinarily sold. This is to be incorporated in a government law.

Another measure which it is proposed to bring before the government as a law is the measure to make it obligatory on the part of people of malarial districts to use quinine, especially where pernicious malaria prevails. It is thought that in this way this severe form can be stamped out.

The association also proposes to distribute literature among the laity, instructing them as to the propagation of malaria, etc., so that they may better take heed of the precautions to be practiced.

Malaria Associated with Acute Abdominal Pain.—It may not be amiss to remind the practitioners of the South and Central States, wherein malaria is frequently seen, that some cases of severe abdominal pain likely to be thought appendicitis or colitis are really of neuralgic nature, due to the presence in the system of the malarial plasmodium. The symptoms point at first entirely to the abdomen, and it is only when the chill and fever occurs that one would think of malaria. In these cases it is urged to have a blood examination made, when the key to the situation will readily be discovered.

As to the manner of the causation of the neuralgic pains in the abdomen and neuralgia in general in association with malaria, Laveran thinks that the symptoms are due to an actual blocking up of the blood vessels by accumulation or plasmodia. Gowers, however, thinks the malarial pains are due to a depressed and anemic state of the nervous system. Marchiafava and Bignami question the etiology of this blocking up of the capillaries by the plasmodia.

The diagnosis of malarial pains can best be treated by first classifying malarial neuralgias. There are two varieties: *first*, toxic; and *second*, post-infective. Toxic neuralgias come on during the febrile attack and are associated with the presence of the parasites in the blood. The recognition of the malarial neuralgia is easy. The great difficulty lies in the recognition of the post-infective neuralgia. These cases are not associated with the presence of the plasmodia in the blood, but are the result of the anemic state of the organism.

Leube lays stress on the enlargement of the spleen in these cases, with history of chills and fever.

Obesity Acquired in Malarious Climates.—A strange fact—if only a coincidence—is that pointed out by Jones of Memphis. He claims that when some individuals move from a non-malarious to a malarious climate, they not only do not contract malarial fever, but they actually take on weight and become obese. He has noticed this in the South.

Prognosis in Comatose Malaria.—The prognosis in the comas of pernicious malaria depends to a large extent upon the history of the case in hand—*i. e.*, whether the patient has been suffering with previous attacks of malaria, or whether the attack in hand is the first or second one. If the patient has not had such previous attacks, then the prognosis is almost always fatal. Recovery from the coma in patients with no previous malarial history usually speedily follows on the administration of quinine In the St. Louis City Hospital, the compiler has frequently seen these comatose forms relieved by the hypodermic use of quinine, and that form with urea is accepted as the best remedial agent for hypodermatic injection.

The Negro Enjoys Immunity from Malaria.—Just as the negro of the South usually enjoys immunity from attacks of yellow fever which kills off his less fortunate white brother, so does the negro escape malaria, as a rule. It is a matter of common knowledge that the negro of the South seldom, if ever, suffers with chronic malaria. It is questionable if ever a negro has been known to have suffered with malarial hemoglobinuria.

Nervous Manifestations of Malaria.—Gowers speaks of the occurrence of central paralysis due to malaria. Numerous cases are in literature on the nervous sequelæ of malaria. Suckling records one of the most interesting of these cases, and it may be well to cite it. His case was a paraplegia due to malaria, the paralysis occurring twice, each time a fortnight after an attack of ague, and in each instance recovery began on the third morning after the onset of the paraplegia, and was complete in a few hours. Another type is that reported by Romberg in 1853—one of the earliest reported cases—the paraplegia occurring on alternate mornings, at the same hour each time, and passed off in a few hours. Sensation was

not affected in this case, although a paralysis of the sphincters was present. The condition was controlled by quinine. Others who have reported malarial paraplegia are Hurd, Stockwell and Boinet. Boinet stated at the eleventh International Congress of Medicine that, among other nervous phenomena of malaria, he had seen many motor disturbances, paralyses, convulsions and choreiform movements.

Manneberg speaks truly of the unfortunate fact that in all the cases of nervous implication in malarial fever there has been but little opportunity or ambition on the part of the chroniclers of these cases to state what the nature of the pathologic conditions was at autopsy. A noted exception to this is found in the admirable paper of Spiller in the *American Journal of the Medical Sciences* for December, 1900. He reported a case of malaria presenting symptoms of disseminated sclerosis, with necropsy. The usual classical symptoms of multiple sclerosis were present. Pathologic findings were those usually found in this condition, with the addition of small hemorrhages found in the brain of recent origin.

The Condition of the Bowels in Malaria.—Some contend that diarrhœa is frequently a complication of malaria, and that we should use measures to guard against the occurrence of this condition in malarious subjects. A condition of paresis of the bowels in malaria is not always the rule, however. Very often the reverse is the rule, and in that case anticonstipative treatment should be employed. It goes without saying, that in a toxic state like malaria the bowels should always be stimulated to help throw off the infection, and that the practitioner should think twice or thrice before absolutely checking a diarrhœic state that may ensue.

Inunctions of Creosote in the Treatment of Malaria.—Some time ago Fitzgerald, of the Indian medical service, reported his success in treating patients affected with malaria with inunctions of creosote. These cases, so he claims, showed the parasites in the blood, and were not readily amenable to quinine treatment. By daily repeated inunctions of creosote relief was obtained. The creosote was mixed up with olive oil and rubbed in in the ordinary manner. This is claimed as an ideal treatment for children.

Malaria and Pregnancy.—The occurrence of malaria during the course of pregnancy often works havoc, by sacrificing the life of the fetus, and often endangering the life of the mother. Simple remittent fever seldom affects the course of pregnancy, either by endangering the life of the fetus or that of the mother. It is in intermittent fever that we must look for trouble when occurring in a pregnant woman. It almost always produces abortion. The *raison d'etre* for the production of abortion in these cases is the sudden rise in bodily temperature. By rapidly lessening this rise with quinine medication, some chance is given for the mother and fetus to escape unharmed.

SURGERY.

Edited by Norvelle Wallace Sharpe, M. D.

Malignant Growths.—The following are some of the conclusions reached by Mason (*British Medical Journal*, May 18, 1901) and presented before the British Medical Association. They are deduced from an analysis of 5000 lethal cases due to malignant growths. While hardly in accord with the generally accepted thought, yet as a contribution to our knowledge of malignant disease, the report is of value.

Diabetes in Surgery.—Robert T. Morris gives three reasons why diabetes interferes with surgeons: (1) The sugar circulation in the blood is hygroscopic and it draws water from all the body until the tissues are actually dry. This must interfere with the normal process of repair, and it probably does so in several different ways. (2) The surgeon must give these cases his special attention, because the fluids of a wound loaded with sugar are in all probability excellent culture media for bacteria, and are particularly suitable for the growth of bacteria therein. (3) Certain anesthetics may precipitate an impending nephritis because of the unusual labor involved in excreting sugar. In these cases the author uses nitrous oxide and oxygen instead of the other anesthetics, especially avoiding the use of ether.

Catharsis in Abdominal Surgery.—Crandon gives the results of observations made during his service as house officer in the Boston City Hospital on catharsis in abdominal surgery. It has been proven by a number of experiments that peristalsis is a reflex action. The lower part of the ilium has been proven to be the place where the contents of the intestine move the fastest. It has been found that the vagus nerve when stimulated directly or reflexly increases peristalsis, and that moderate stimulation of the splanchnic nerve decreases it.

Any decrease in the normal activity of the nerves or nerve-centers means constipation. This author studied cases of abdominal section, and concludes that (1) in acute pelvic peritonitis, both enemata and drugs by mouth, should be used to produce catharsis before operation; drugs by mouth and oil per enemata after operation. (2) In all acute inflammatory conditions in the abdomen in which the alimentary tract is involved the bowels should be moved by enemata alone before and after operation, the enema of salts, turpentine and glycerine being the best.—*Boston Med. and Surg. Jour.*, June 27th.

Some Statistics on Cancer.—Dr. Nanson found that the preponderance of females over males as the subjects of cancer was about sixty-two to thirty-eight per cent., due to the fact of the great frequency of breast and

uterine involvement. If the sexual peculiarities of the two sexes be excluded, the male is found to be the more often affected, in the proportion of fifty-three to forty-seven per cent. It furthermore appears that the steady increase in the frequency of occurrence of cancer has been far more noticeable in men than in women.

A Case of Primary Carcinoma of the Vagina.—A case of this uncommonly rare disease is recorded by Gill in *The Lancet*, June 1. The patient was a healthy-looking woman, age about thirty years, who had requested her husband to call upon me to get a lotion for the whites, but for which I declined to give a prescription without seeing the patient. The writer found that the discharge was often tinged, and that there was frequently pain and some hemorrhage upon coitus. On examination, about two inches within the vagina was found a cauliflower-like growth about the size of three walnuts, with a base the size of a florin. There was no thickening around the base of the growth, as demonstrated by placing a finger in the rectum and one in the vagina. Beyond the growth the vagina, as well as the cervix, was perfectly healthy. Several glands in both groins were enlarged and tender. The growth was removed by a circular incision, and the glands in the groin were also removed. The growth returned in less than a month and spread to the tissues above so that a constriction of the bowels was feared. The patient afterwards developed disseminated masses under the skin of the abdomen. Microscopically, the growth was found to be cancerous.

Asepsis of the Surgeon's Hands by Means of a Protective Varnish.—M. Marian, finding great difficulty in removing the odor from his hands after post-mortem examinations, varnished his hands and thus overcame the difficulty. He has experimented bacteriologically to ascertain if it is safe for a surgeon with the aid of varnish to operate after having his hands in a septic fluid. His answer is in the affirmative. The composition of the varnish is not stated, but he obtains it from Soehnee Freres. It has antiseptic properties, and is mixed with oil of lavender, is easily removed after washing with soap and then alcohol, and adheres four or five hours. —*Gaz. des Hop. de Toulouse.*

Thoracic Aneurisms Treated by Gelatin Injections.—Many reports have appeared on the treatment of thoracic aneurisms by means of subcutaneous injections of gelatin. The great drawback to the operation is the extreme pain occasioned by making the injections. Another point of difficulty is the fact that the gelatin, unless carefully prepared, is certainly dangerous to use. Corner has reported three cases in which he used this treatment, showing mainly the difficulties encountered in the use of such a measure rather than the results accomplished by it.

PEDIATRICS.

Glandular Fever.—Marcel Labbe, in *La Presse Medicale*, says that the term glandular fever, as used since Fifer's description of the disease *Drusen Fieber*, designates a disease characterized by more or less febile disturbance with glandular tumefaction, but rarely followed by suppuration. Commonly the fever begins abruptly, either coryza or stomatitis and an erythema of the throat. This angina is often so slight that it escapes observation. Two or three days later the glands begin to swell, those most frequently involved being in the neck, the submaxillary, or at the angle of the jaw. The ganglionic masses are often painful, and the inflammation increases. Occasionally there may be suppuration. As a rule, the fever declines a few days after the swelling begins, and for some time after the cessation of the fever the glands decrease in size. The affection is usually benign, but suppuration may occur. This is a disease of infancy or early dentition; occasionally it is observed in adolescence. Sometimes it occurs in several members of a family, but it never occurs in a way to suggest an epidemic. The writer regards the term glandular fever as a misnomer, if used in the sense of a specific disease. It has no specific term, but is due to an infection derived from the mouth, nose or the pharynx.

Saline Infusion in Puerperal Eclampsia.—Groves read a paper on the pathology and treatment of puerperal eclampsia before the Obstetrical Society of London (*The Lancet*, April 27th). In the treatment he referred especially to the use of saline infusions, and gave notes of his cases. One was a primipara of twenty-three years, who had convulsions after an easy labor. In spite of morphine and pilocarpine, they increased in severity for twelve hours. Intravenous injection of eleven ounces of hot normal saline solution was followed by rapid improvement. The coma and convulsions lessened at once, and ceased within three and a half hours. A second case was that in which the coma and anuria ushered in labor at full term. The attacks were of extreme violence; twenty-six occurred between 2 A. M. and 4 P. M. An intravenous injection of seven ounces of normal saline solution lessened the attacks, which ceased at the end of fourteen hours. At the end of forty-eight hours coma had passed off and diuresis was established.

Diabetes Mellitus in a Child Aged Six Months.—L. Baumel, in *Annales de Medicine et Chirurgie Infantiles*, January 1901, reports two cases of diabetes in children. The first patient was a child of thirteen years, and second an infant of six months. Both died, but an autopsy was only performed in the last case, which forms the subject of this paper. A marked atrophy of the pancreas was found.

In the light of present knowledge, especially that given by Ludwig,

Rossa and Bell, it may be said that diabetes may exist in the fetus. Some observers claim that the glycosuria observed during the first months of life is nothing but the accidental presence of lactose in the urine, due to some gastro-intestinal disturbance. The present author, however, considers such cases as really diabetes mellitus in an attenuated form. He thinks that the pancreas is always the cause of the affection, and that it is not due, in children, as some assert, to infection or heredity. He thinks that dentition may act as a contributing cause, irritating the trigeminal nerve and reflexly affecting the medulla and pons. His treatment is as follows: alkalies to better the condition of the pancreas; calcium phosphate or glycero-phosphates to help dentition; as thrush is a frequent complication of dentition, he recommends its prophylaxis by swabbing the mouth with boric acid lotions, or by the use of the following mixture, given in teaspoonful doses at intervals of three hours:

℞		Grammes.
	Lime water,	
	Lactucarium water	aa 60.0
	Simple syrup	30.0
	Tincture of musk	4 drops

In addition, bromides may be required to soothe the irritablity of the nervous system, and pancreatin may be given in cases that resist the above-mentioned measures. Possibly in future hypodermatic injections of pancreatin may be used in diabetes as in the diabetes of infancy, as the ferment is digested in the stomach.

The Diagnosis of Diphtheria.—Dokin (*Brit. Med. Journal*, November 3, 1900) says that the tendency of the physician of to-day is to rely blindly upon the results of bacteriological examinations in diphtheria. The physician should not wait until the report of the bacteriologist comes in, but should treat the case as diphtheria if the clinical symptoms warrant it. If there are no clinical signs of diphtheria and the diphtheria bacilli are found, then the case should be treated as diphtheria.

The Care of Premature Babies in Incubators.—Many lives can be saved annually by the use of the couveuse for premature babies. Before the innovation of this means of practically substituting an artificial environment for the immature infant, all these lives were sacrificed upon the altar of inexperience and ignorance. Now we may save these lives. James D. Voorhees gives a good review of the work done at the Sloane Maternity Hospital in New York, in the direction of incubator life for premature babies. At the Sloane Maternity Hospital premature babies are classified as follows:

1. Those treated as babies at term.
2. Those wrapped in cotton.
3. Those kept in the incubator.

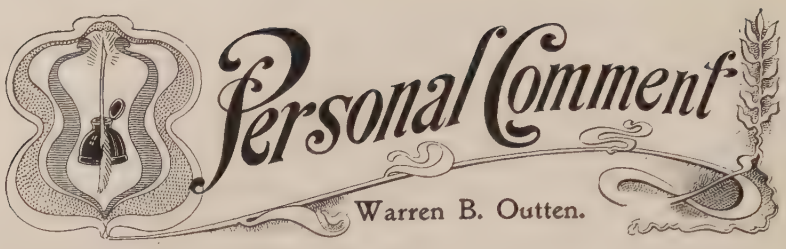
The Lion incubator is probably the best in use. It fulfills the four problems to be solved in the management of premature babies:

1. The maintenance of a proper temperature.
2. The prevention of exhaustion.
3. The administration of the proper amount and kind of nourishment (permitting the nurse to feed the child through a glass window at the side).
4. The avoidance of infection; the temperature is kept equable by means of a metallic thermo-regulator.—*Pediatrics*, July, 1901.

The Pathogenesis of Night Terrors in Children.—J. G. Rey says that night terrors are always due to some obstacle to respiration and hematosis; the obstruction may be of reflex origin. The terrors are merely the result of a slow and prolonged carbonic acid intoxication, which explains all the accompanying symptoms. Since all night terrors are symptomatic, it is useless to classify them as idiopathic or symptomatic. If two varieties are absolutely desired, one may separate those due to a direct obstruction to respiration from those due to a reflex cause.—*Rev. Mens. des Mal. de l'Enf.*

Empyema in Children.—Crandall (*International Med. Magazine*) states that aspiration and other temporizing means are futile. Free incision with drainage is the best method of treatment. Differences of opinion exist only as to the extent of the operation. If performed early, simple incision has sufficed, in the experience of many, to promote free drainage. If performed late, the ribs should be carefully excised. The incision should be free; the drainage tube should be of good size; the cavity should not be irrigated; and every effort should be made to keep the wound in an aseptic condition.

Blue Urine.—A case is recorded in *The Lancet*, June 1, of a patient passing blue urine. As we know, methylene blue is now prescribed by the profession, and the urine of patients taking it becomes blue in color, but this was apparently not the cause of the blue color of the case referred to. Good, who handled this case, made careful inquiries and found that the patient had not been taking methylene blue. Good suggested that the blue color was due to the presence of indol arising from proteid decomposition. Indol by the putrefactive action of the bacillus coli forms indican, which, on oxidation, causes the formation of indigo. For these chemical changes to occur before the urine is passed is rare, but this phenomenon has been noted in typhus and in cholera. The blue color has been more frequently seen when the urine has been exposed to the air and is becoming decomposed. Indican occurs in the urine more particularly in cases of constipation and in cases of long-continued intestinal obstruction.



Is Psychology Placed in its True Position in Medicine?—Carefully study the field of medicine and then must come the thought that the psychological elements of disease are not studied as fully as their importance demands. The causative factors of disease cannot always be determined, but in every instance the mentality of the patient has a most positive and undoubted influence in cause, course and result.

There can be no doubt but that many troubles have for their cause psychological troubles. The physician, too, often becomes the convinced victim of a dangerous pessimism. Thus in the examination of a case in the course of treatment pathological evidences present themselves in such a portentious and seemingly undoubted profusion that the physician becomes convinced of the impossibility of a cure. He then becomes an instrument in the succumbing of the patient. This patient already is in the throes of an oppressive psychological state, and it needs but little to fix upon such a mind a fatal suggestion. It is not given to the physician the power to interpret the deep, true and possible ability of nature to cure, seemingly, the most pronounced and necessarily the most morbid conditions. If then the physician in many instances cannot be absolutely certain of what nature can accomplish, he certainly errs when he presumes to interpret the laws and ultimatum of God Almighty.

It is a sad but eternally constant truth that the influence of a determined but misguided opinion upon the part of the physician has been the cause of death more certainly than the diseased condition. The physician is not by any law of morality or justice constituted the arbiter and judge of what nature can and must do. If mind is the man, if mind is that power that controls the physical nature of man, it then must have a powerful bearing upon all diseased conditions. Many a patient has been literally choked to death by a predetermined and brutal self-opinionated suggestion.

The most successful physicians of this or any other age have been the interpreters of psychological conditions. The physician cannot afford to neglect the psychological factors in any disease, since man to-day is the creation whom inherited mentality rules to his ruin and death. Who after due deliberation would dare to assert that an inherited mentality has not stamped upon man the incurability of cancer and hydrophobia? As age upon age has come and gone, man in utero, growth and maturity has his mind stamped, and indelibly stamped, by the thought, assertion and

consequences of the absolute fatality of these troubles. Take from the patient this inherited belief and we honestly believe that the fatal elements of disease, of many diseases, may be removed. There are few diseases to which man is subject in which psychological conditions can be ignored.

The educated physician must deplore and wonder how such an insane doctrine as Christian Science can flourish, but it flourishes because it gets results. Strangely but truly it often reaches results where physicians of ability have failed. To our mind these results are plainly traceable to psychological influences. In fact, when science fails most oft, the pretender succeeds, because the psychological condition has been interpreted aright.

"The mind can make substance and people planets as its own." The mind is the standard of the man, and can make or bankrupt him by vicious suggestion. We as physicians know that in disease the mind is able to influence physical conditions profoundly. The sick man's mind is a tremendous area where adverse suggestion plays havoc. It is true that man's mind is the victim of eternal suggestion. Its very nature makes it an acute receptacle to suggestion. It absorbs and incorporates into its own cellular folds and convolutions all ideas which it receives. Hence this delicate receptive and absorptive organ must be treated with some acumen and care.

We commend this thought of Pascal: "The mind of the greatest man on earth is not so independent of circumstances as not to feel inconvenience by the merest buzzing noise about him. It does not need the report of a cannon to disturb his thoughts. The creaking of a vane or a pulley is enough. Do not wonder that he reasons ill. Just now a fly is buzzing by his ear. It is quite enough to unfit him for giving good counsel." Medicine to grow great and more efficient must study more deeply psychological conditions. The progress of the future must come largely through psychology. We have dallied with substance to the detriment of the mind. We must believe that mind is the golden key to open the doors of all future progress, and a comprehension of its wonderful powers and effects will lead to the elevation of medicine and the blessing of mankind.

Musical Anæsthesia.—Helmholtz says: "Music stands in a much closer connection with pure sensation than any of the other arts." It is asserted that music is the mediator between the spiritual and the sensual life; the most immediate means possessed by the will for the manifestation of its inner impulses. While we know that music is a crystallization of sound, the true universal speech of mankind, making men milder and gentler, and that it hath charms to soothe the savage breast, still, in our wildest dreams we did not know that it was the sweetest and best of anæsthetics. We see it announced that musical dentistry has brightened the horizon for all toothache sufferers. This subject has been taken up by a well-known physician, who expounded it before the Paris Academy of Medicine, and has thus

received the sanction of high scientific authority. The method consists in drawing teeth to the sounds of sweet music. This trying operation becomes not only harmless, but decidedly pleasant. The idea was first suggested by observation of patients under the influence of anæsthetics, such as nitrogen proto-oxide in vapor. The incipient effect of this vapor in nearly every case disagreeable, sometimes producing almost unbearable sensations resembling those experienced in nightmare. From this fact a conclusion was reached that these bad dreams at the beginning of the anæsthetic influence were caused by the perception of noises around suggesting to the mind when in partial consciousness. Now, if these noises suggested bad dreams, why not soothe the mind and suggest sweet dreams in this partial and temporary oblivion, through sweet and delightful sounds? The experiment was tried; beautiful and entrancing sounds filled the operator's room; the result completely charmed both patient and operator. The patient neither gave vent to contortions nor groans, and permitted the operator to work with ease and pleasure, the only retrospections left with the patient were sweet and lovely, since he could only remember some striking bars of delightful harmony from Lohengrin. The operator, under the influence of the music, worked as good as gold, for tooth-pulling had become sweetly harmonious since no agonized screech or soul-aggrieved groan rent the air. But in its place this tableau grew into actuality: the occupant of the dreaded dental chair awakes with a beatific expression upon his face, his ears still humming with beautiful sounds, while the smiling dentist displays the extracted tooth. Now, with this new form of anæsthesia a new requirement is demanded—that is, a judicious selection of music to suit different people; for if a bad selection is used, hideous nightmares and dreams might come again. We once heard a steam piano in operation, and it was the first and only time which the writer of this believed that he could have committed murder with fiendish and ecstatic pleasure. If musical anæsthesia becomes more extended, it will only be a mere matter of time before some of our metropolitan hospitals will have Sousa's band or Theodore Thomas' orchestra discoursing music while laparotomies, etc., are performed. But, thank heaven, the field of music is filled with means without end here; the talking machines will soothe the excited air in the doctor's office, instead of only being monopolized by bar-rooms, etc. We trust that musical anæsthesia will enlarge and be truly successful; then there will be no more nausea, vinegared towels and other paraphernalia. Artemus Ward was the first person who seemed to connect music with teeth, since he said that in Salt Lake City, Utah, that he knew a man out there "who did not have a tooth in his head, and yet he could beat the base drum as good as anybody on earth."

How the Vocal Cords Operate.—Prof. Scriptun, in the April number of the *American Journal of Science*, concludes that the so-called vocal cords cannot vibrate in the manner of strings nor of tongues of reed-pipes, but

must vibrate compressively in the manner of elastic cushions. Prof. Joseph Le Conte in *Science* reviews the opinions upon this subject and says: "On page 210 of my book on Comparative Physiology and Morphology of Animals—speaking of the larynx as a musical instrument—after showing that it cannot be likened to a stringed instrument or reed-pipe, I say it is strange that no one has thought to liken it to an ordinary horn; or better, a French horn. In this instrument the sound is modulated exactly as in the larynx or by the tension and pressing together of the lips of the performer. The edges of the rima glottidis ought to be called the vocal lips, as indeed they are, and not the vocal cords, which they are not in any sense. The analogy between the two instruments is perfect. The performer of the horn presses his lips together tighter, makes them tenser and the opening between them smaller, in proportion as he desires a higher note. He then drives the air between the tense lips so as to set their edges in vibration. This vibration by alternate partial closing and opening of the aperture gives rise to successive jets or pulses of the outdriven air, and this in its turn gives corresponding pulses to the air in the sounding cavity of the horn, precisely the same as we have seen takes place in the larynx. The only wonder is that so small an instrument as the larynx and the mouth cavity should be capable of such marvelous effects."

The scarlet fever epidemic in Keene, New Hampshire, led to the Cheshire National Bank of that town sterilizing all the money which passed through it. This was accomplished by a special sterilizing oven which was erected for that purpose. The precaution will, we are sure, commend itself to the profession.

Considerable attention has been given in the public press to a bill for $190,000.00, which was rendered by Dr. Browning, of Philadelphia. It seems, however, that this bill was made up of separate charges made at regular rates, and the account rendered each month. The very large sum was made possible because of the fact that the patient was twenty-one months under the care of the physician, receiving more than 5000 hours of service; more than 2000 of which was for night visits.

Drinking on the Decrease in Ontario.—In 1889 the convictions for drinking in Ontario amounted to 4797, but in 1899 this had dropped to 1892, a decrease of over sixty per cent. In 1889 there was one conviction for drunkenness in every 295 persons, and in 1899 one for every 826, and the figures indicate that between these years the reduction was progressive.

The American Pocket Medical Dictionary, Revised Edition. Edited by W. A. Newman Dorland, A. M., M. D. Philadelphia: W. B. Saunders. 1899.

This very compact little dictionary is a valuable book for the medical student to carry in his pocket and consult at times when he needs explanation of medical terms. It is thorough and is correct. We cheerfully recommend it.

A Text-Book of Gynecology. Edited by Charles A. L. Reed, A. M., M. D., President of the American Medical Association (1900–1901); Gynecologist and Clinical Lecturer on Surgical Diseases of Women at the Cincinnati Hospital, etc., etc. Illustrated by R. J. Hopkins. New York: D. Appleton & Co. 1901. 900 pages.

The object aimed at by Reed has been accomplished in an excellent way. He has produced a working manual for practitioners and students, which embraces the best approved development of gynecology. He has skillfully united the contributions of many writers of reputation to a complete consecutive work, which does not show anywhere that it is an aggregation of monographs. Those introductions, written by Reed to most of the chapters in his well-known masterly manner, often refer to historical facts and prove his familiarity with the medical literature of the world. Everywhere conservatism in the treatment is emphasized; nevertheless he warns of overdoing in this respect, as "conservative gynecology demands saving health rather than diseased, useless organs." The best of all these good chapters seems to be that dealing with the carcinoma of the uterus. It really incloses everything worth knowing on this question, which at present is one of the most important and ardent in gynecology. Reed, Herzog, Carstens, Newman and Robb contributed to this chapter. The few defects easily could be mended in the next edition. It would be desirable to replace some of the histological drawings by better ones. It would be in the interest especially of the students to give the pictures of bacteria in more uniform enlargement. For instance, the disproportion between the staphylococci in Fig. 15 and the streptococci in Fig. 16 is very striking and is liable to mislead the student. The drawings would better be furnished with a short description of their object, instead of the quotations taken out of the text. The absolute necessity of aseptic precautions at any introduction of instruments into the uterus ought to be stated more emphatically. Among the operations of uretero-vaginal

fistulas the excellent vaginal method of Mackenrodt would be worth mentioning. Injuries to the vulva by the sexual intercourse (page 136) aside from slight lacerations of the fourchette are not so very rare an occurrence. In *Monatschrift f. Geb. u. Gyn.*, 1899, Neugebauer gives the report of one hundred and fifty-seven severe cases of this kind, twenty-two of which ended fatally. To the benefit of many the year should be added to the name of the journal to which reference is made. These trifling defects, however, do not detract from the value of this classic book. We cannot doubt that Reed's book will before long be the most widely used text-book of gynecology, as it justly deserves to be.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, other than Drug-Giving, Useful in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College, etc. Volume I.: Electrotherapy. By GEORGE W. JACOBY, M. D., Consulting Neurologist to the German Hospital, etc. In two Books. Book I. With 163 Illustrations. Philadelphia: P. Blakiston's Son & Co. 1901.

This system of therapeutics will embrace the treatment of disease other than by drugs. We know that there are many things that are good in the field of remedial agents which are not found on the shelves of the dispensing pharmacist. We know that the physician is too prone to fall into the rut of prescribing and neglecting all else in the domain of therapeutics. It is the office and intention of this System to lay before the physician all the means outside of mere drugs which are of use in the "healing art." The first part is devoted to Electro-Therapeutics, which is ably handled by George W. Jacoby. In this volume are considered the essential principles of electro-therapeutics, with an exposition of the manner of application of electricity, all of which is well shown in good illustrations scattered throughout the book. We bespeak a pronounced success for the System, as the first volume is an admirable edition. Physicians cannot be too urgently enjoined to follow out the mechanical and other remedial means which offer good results in therapeutics.

Municipal Sanitation in the United States. By CHARLES V. CHAPIN, M. D., Superintendent of Health of the City of Providence. The Providence Press, Snow & Farnham, Providence, R. I. 1901.

The author of this volume is well known, personally or by reputation, to very many of the public health officials of this country, and he has laid them under obligations by the preparation of a work which should be where every one interested in applied sanitation could lay his hand upon it. In the preface it is stated that the work is not a treatise on the principles of sanitation, but rather a compendium of sanitary practice, and not so much intended to advise what ought to be done, as to record what has

been done. "The subject under consideration is the sanitary functions of municipalities, the latter term being used in its broadest sense, including cities, villages, townships and counties." The purpose thus expressed is well adhered to, and the result is an excellent presentation of the working methods of localized public health organizations in this country. The contents number fourteen chapters, of which those on Sanitary Organization, Nuisances, Food, and Communicable Disease and that on Refuse Disposal, may be mentioned as being of especial value. The spirit of the work is thoroughly scientific and in keeping with modern thought, while the labor involved in collecting the *data* used in its production must have been very great. The only criticism that may, perhaps, be offered is that no intimation is given of the impending change in the *rationale* of quarantine and disinfection, due to the recognition of the active agency of suctorial parasites in the communication of disease. Nor does there appear to be any good reason why, in another edition, the sanitary methods pursued in our neighboring countries of Canada and Mexico, as established or modified by direct British, French or Spanish influence, should not be described as an essential part of American municipal hygiene.

The Technique of Surgical Gynecology. By A. H. GOELET, Professor of Gynecology in the New York School of Clinical Medicine; Consulting Professor of Gynecological Electro-Therapeutics, International School of Correspondence, Scranton, Pennsylvania, etc., etc. 340 pages. 150 Original Drawings. International Journal of Surgery Co., New York. 1901. Price, $2.00.

In a most comprehensible manner the author describes in this book the operative technique of the more common gynecological operations, giving no space to diagnosis or indication for operation. With great exactness some chapters deal with the preparation for operations and aftercare of the patient. It is to be regretted that as a rule only one method of procedure is described for each condition, as thus a great number of generally approved, excellent operations were excluded from being mentioned. We recommend every surgeon doing gynecological work to study this book, which contains very much useful advice. Special attention of the reader may be called to some original inventions of the author, as the dilators, the very simple leg-holder, and especially the rubber sponge tent cover, for aseptic dilatation of the cervix by means of tents.

Tuberculosis: A Disease of the Masses and How to Combat It. Prize Essay, Berlin, 1899. By S. A. KNOPF, M. D., New York. M. Firestack, 200 West Ninety-sixth street, New York. Single copy, Paper, 25 cents; Cloth, 50 cents.

This is undoubtedly the most popular essay upon tuberculosis of recent date. As the title indicates, it is intended more for the dissemination of general information regarding the public question of the limita-

The most Perfect Form of Dosimetry is afforded by

PARVULES

THE term Parvule, from *Parvum*, (small) is applied to a class of remedies (Warner & Co.'s) in the form of minute pills, containing minimum doses for frequent repetition in cases of children and adults. It is claimed by some practitioners that small doses, given at short intervals, exert a more salutary effect. Sydney Ringer, M. D., in his recent works on Therapeutics, sustains this theory in great variety of cases. 20 cents per 100.

PARVULES OF CALOMEL, 1-20.

MED. PROP.—ALTERATIVE, PURGATIVE.

DOSE.—1 to 2 every hour. Two Parvules of Calomel, taken every hour until five or six doses are administered (which will comprise but half a grain), produce an activity of the liver which will be followed by bilious dejections and beneficial effects, that twenty grains of Blue Mass or ten grains of Calomel rarely cause, and sickness of the stomach does not usually follow.

PARVULES OF CALOMEL AND IPECAC.

℞ Calomel, 1-10 gr.
Ipecac, 1-10 gr.

MED. PROP.—ALTERATIVE, PURGATIVE.

DOSE.—1 to 2 every hour. Two Parvules of Calomel and Ipecac, taken every hour until five or six doses are administered (which will comprise but a grain of Calomel), produce an activity of the liver, which will be followed by bilious dejections and beneficial effects, that twenty grains of Blue Mass or ten grains of Calomel rarely cause, and sickness of the stomach does not usually follow.

PARVULES OF ALOIN, 1-10.

MED. PROP.—A MOST DESIRABLE CATHARTIC.

The most useful application of this Parvule is in periodic irregularities—Dysmenorrhœa and Amenorrhœa. They should be given in doses of one or two every evening at and about the expected time.

DOSE.—4 to 6 at once. This number of Parvules, taken at any time, will be found to exert an easy, prompt, and ample Cathartic effect, unattended with nausea, and in all respects furnishing the most aperient and cathartic preparation in use. For habitual constipation, they replace when taken in single Parvules the various medicated waters, avoiding the quantity required by the latter as a dose, which fills the stomach and deranges the digestive organs.

PARVULES OF PODOPHYLLIN, 1-40.

MED. PROP.—CATHARTIC, CHOLAGOGUE.

Two Parvules of Podophyllin, administered three times a day, will re-establish and regulate the peristaltic action and relieve habitual constipation, add tone to the liver, and invigorate the digestive functions.

PARVULES OF NUX VOMICA, 1-50.

(WARNER & CO.)

Nux Vomica, according to Dr. Ringer, is possessed of real curative powers for sick headache, accompanied with acute gastric catarrh, whether due to error in diet, constipation, or to no apparent cause. He regards it, administered in small and frequently repeated doses, as useful in many disturbances of the gastric functions.

SUPERIOR TO PEPSIN OF THE HOG

INGLUVIN

A Powder—Prescribed in the same manner, doses and combinations as pepsin.

A SPECIFIC FOR VOMITING IN GESTATION IN DOSES OF 10 to 20 Grains.

WILLIAM R. WARNER & CO.

PHILADELPHIA
NEW YORK
CHICAGO

LARGEST PILL FACTORY IN THE WORLD.

For sale by all druggists or sent by mail on receipt of price. Physicians' private formulæ made up in lots of 3,000 and over. Pills, granules or compessed form. Write for quotations.

tion of tuberculosis than to be ultra-scientific, and yet Dr. Knopf has condensed within eighty-six pages probably more valuable information for physicians and boards of health and the public generally than has been accomplished by any similar attempt.

The fact that this essay received the prize of 4,000 marks from the International Congress for the Study of the Best Way to Combat Tuberculosis as a Disease of the Masses, at Berlin in 1899, and the further fact that eighty-one essays were presented in competition, is perhaps its best recommendation. The writer has done more to arouse practical interest and to develop and advance conclusions and perfection than probably any other man in America. We commend this essay highly. W. P.

Annual and Analytical Cyclopædia of Practical Medicine. By CHARLES E. DE M. SAJOUS, M. D., and One Hundred Associate Editors, Assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs, Engravings and Maps. Volumes I., II., III. Philadelphia, New York, Chicago: The F. A. Davis Company, Publishers. 1900.

The "Annual" as it is now presented to readers is rather a unique work, and withal one which will prove invaluable to the medical profession. The book takes up subjects and discusses them, first in the light of the present knowledge on the subject, then with a review of the literature on the same during the past ten years. In this way the practitioner is furnished with facts concerning any given subject, together with all that is recent and all that is a few years old; his memory is constantly refreshed, and he has a lucid and complete exposition of all which he desires. In the same way the investigator, anxious to delve deep into the subject, has the key to the situation by the quotation of the work done by his fellow-workers. Volume I. goes into the subjects from Abdominal Injuries to Bright's Disease. The subjects included under these heads are well treated, and nothing remains to be added. The "Annual" should grace every physician's library.

Volume II. of this excellent work is before us, and we take pleasure in according it the same enthusiastic welcome with which the first volume was received. The subjects of Bromide of Ethyl to Diphtheria are taken up in this volume. The same careful review of the literature of medicine is found in this volume as in the preceding. A most excellent article is that on Cerebral Hemorrhage. It is not to be wondered at that the book is of such a high order when we consider, first, the reputation of the chief editor; and, secondly, the ability of the staff of editors collaborating with him.

Volume III.—The preceding volumes have already been noticed. It gives us great pleasure to repeat the unqualified commendation therein

HYDROZONE

(30 vol. preserved H_2O_2 solution.)

IS THE MOST POWERFUL ANTISEPTIC AND PUS DESTROYER.
HARMLESS STIMULANT TO HEALTHY GRANULATIONS.

GLYCOZONE

(C. P. Glycerine combined with Ozone.)

The MOST POWERFUL HEALING AGENT KNOWN.

Successfully used in **Diphtheria, Croup, Scarlet Fever, Sore Throat, Catarrh of the Nose, Ozœna, Hay Fever, LaGrippe, Bronchitis, Asthma, Laryngitis, Pharyngitis, Whooping Cough, Etc. Inflammatory and Suppurative diseases of the Ear.**

Send for free 300-page book "Rational Treatment of Diseases caused by Germs," containing reprints of 140 scientific articles by leading contributors to medical literature.
Physicians remitting 50 cents will receive one complimentary sample of each, "Hydrozone" and "Glycozone."

Hydrozone is put up only in extra small, small, medium and large size bottles bearing a red label, white letters, gold and blue border, with my signature.

Glycozone is put up only in 4-oz., 8-oz. and 16-oz. bottles bearing a yellow label, white and black letters, red and blue border, with my signature.

Marchand's Eye Balsam
cures all inflammatory and contagious diseases of the eyes

DISTRIBUTING AGENTS:

Thomas Christy & Co., 25 Lime St., London, Eng.
Leeming, Miles & Co., 53 St. Sulpice St., Montreal, Can.
Beckett, Zeilin & Co., 220 Sutter St., San Francisco, Cal.
E. H. Buehler, 134 Lake St., Chicago, Ill.
John W. Lehman, 428 Camp St., New Orleans, La.

PREPARED ONLY BY

Charles Marchand

Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

57-59 Prince St., New York.

☞ SOLD BY LEADING DRUGGISTS. AVOID IMITATIONS. MENTION THIS PUBLICATION. ☜

"When the digestive and assimilative powers are lowered less variety and less quantity of food can be tolerated, and foods that in health are never needed, may become necessary."

....SUCH A FOOD IS....

Extract of Plasma—"HENIUS"

A Yeast Food

EXTRACT OF PLASMA is neither a malt extract nor predigested food, but is AN EXTRACT OF THE PROTOPLASM OF THE YEAST CELL, containing IN ORGANIC FORM, PROTEIDS, PEPTONES, ALBUMOSES and the TONIC PHOSPHATES.

"PLASMA IS THE PHYSICAL BASIS OF LIFE" (Huxley).

In utilizing **EXTRACT OF PLASMA** the physician avoids indigestible compounds and **REVERTS TO THE FIRST PRINCIPLES OF CELL BUILDING,** as provided by nature.

Extract of Plasma is especially indicated in patients convalescing from fevers and wasting diseases in general, and in all conditions where nutrition is below par.

Sufficient quantity for trial, with literature, sent on request.

THE WAHL FOOD COMPANY, St. Louis, Mo.

given. This third volume is the equal of the others. We know of no work so useful to the general practitioner, and so comprehensive in gathering in all that has been written, in a fair and unbiased way. Too often cyclopædias are merely a system of monographs, setting forth the views of individual writers; useful certainly, but very different from this. Here we have the literature from every worthy source condensed by competent editors, arranged chronologically, and presented so plainly and concisely that the reader has the whole subject before him in an easy retrospect.

Quain's Dictionary was for a long time a necessity in the working library. This is of the same nature, but fuller, and a worthy successor to that time-honored volume. The profession has shown great appreciation of the first two volumes of the Cyclopædia, and this will not be lessened when the third volume is received. Some of the articles are of exceeding merit, viz.: Cretinism, by Prof. Osler; Exophthalmic Goitre, by Prof. Putnam; Endometritis, by Prof. Byford, and many others. In fact, the whole volume is a mine of wealth—rather, gold that has come forth from the severest crucible. The articles by Sayre, Stelwagon and Stimson are worth the whole cost of the book. If there is one compendium which the busy practitioner cannot do without it, is Sajous' Cyclopædia.

Manifestations of Malaria in Children.—Just as we see a different form of typhoid fever in children than in adults, so we see a difference in the malarial manifestations of children as compared to the adult. In very young children the stage of chill is replaced, according to Taylor, by mere restlessness, cyanosis and cold extremities, with yawning, nausea, or possibly diarrhœa, and, along with these, various motor nervous phenomena—twitching or convulsions. In the hot stage the temperature may go high, the child becomes restless, thirsty, with flushed face, hot skin, injection of the eyes, full and rapid pulse, and severe pains in the head, back and limbs. The urine meanwhile becomes scanty and dark in color. In older children the paroxysm is somewhat similar to that seen in the adult. The significant fact, however, that should be borne in mind in the treatment of children with malaria is that, instead of the chill as we see it in the adult, we have a convulsion instead. This follows the general rule in all diseases with chills that are met with in childhood.

An interesting case of coma in a child of three years, due to malaria, is reported by Stone in the *Archives of Pediatrics* for January, 1901. The child became comatose and cyanotic; malarial parasites were found in the blood and cleared up the diagnosis; prompt use of quinine relieved the condition.

However much disposed a patient's stomach may be to refuse substantial nourishment during the extreme heat of summer, there is scarcely an instance where Scott's Emulsion cannot be readily accepted and easily retained.

SCOTT & BOWNE, 409 Pearl street, New York.

Diet in Typhoid Fever

SUPPORTING the strength of the typhoid patient without overloading the stomach or fatiguing the intestine demands the most careful judgment on the part of the physician. The selection of a diet which will nourish the patient without giving distress, causing elevation of the temperature, or inducing diarrhœa presents a problem heretofore difficult of solution. The question has been satisfactorily settled in

PLASMON

NO SUGAR • NO FAT • UNCHANGEABLE • PURE

A SOLUBLE, PURE MILK-ALBUMIN

ODORLESS, TASTELESS, NUTRITIOUS AND INEXPENSIVE
REPLACING ANY AND ALL OTHER NITROGENOUS FOODS

The ingestion of PLASMON even in the early stages of typhoid fever will not cause any rise in temperature; it nourishes the patient without overtaxing the digestive organs, stimulates the natural appetite, and if diarrhœa exists PLASMON has a tendency to check it without producing constipation.

PLASMON furnishes the system with the most essential constituent of the human organism, Albumin, and in a soluble, extremely digestible and highly assimilable form. It can be administered alone, or in combination with any articles of food. PLASMON is not a substitute for Albumin, but IS ALBUMIN, pure and simple. *Physicians are invited to send for samples, and prove for themselves that the claims made for PLASMON as a nutrient are based upon established facts.*

The AMERICAN PLASMON SYNDICATE, Ltd.

24 ASTOR COURT NEW YORK CITY

SURGICAL SUGGESTIONS.

Remarkable Vitality Following Injury.—Two cases of remarkable vitality following severe injury, reported in the *Lancet*, May 25 and June 8, 1901, are of interest in assisting to crystallize our surgical judgments when estimating the resistance of man to shock. The first, noted by Caddy, survived a rupture of the inferior vena cava for two and a half hours; the second, noted by Greene, survived a perforation of the stomach, diaphragm, pericardium and heart (with associated traumata) for nine hours. Were these cases extraordinary by reason of rarity, their value would consist in the lapse which presupposes the existence of the rule. But as they are merely unusual examples of the vitality of man which is daily demonstrated, whether on the operating table or in the medical and casualty wards, they may justly be permitted to sanction the courageous aggressiveness of latter-day surgery in leaving no region unexplored in life-preserving efforts; and the knowledge that satisfactory reaction may be, as a rule, expected to follow operations of the gravest character.

Gastric and Duodenal Ulceration.—A. Wilson reports four cases of gastric and duodenal ulceration in the *Lancet*, June 13. The first was a man of twenty-eight years, who was admitted with all the symptoms of an acute general peritonitis. Operation was done four hours after the onset of the first symptoms. Perforation was found in the anterior wall of the stomach about one-half inch from the pylorus. The ulcer was inverted by two rows of sutures and then a fold of omentum was stitched over it. As the contents had found their way to every part of the abdomen, a second opening was made over the pubes and irrigation practiced through it. The patient made an excellent recovery. Case No. 2 was a man of twenty-one years. Symptoms started with a sharp pain in the abdomen, which was relieved by laudanum. At the time of operation the patient would not consent to operation, which was postponed ninety-two hours after the first onset of symptoms. In this case the stomach contents had escaped through a perforation, but were well walled off by adhesions. This patient recovered. The third case was similar to the second and recovered. The fourth case was in a man of forty-eight years, who suffered perforation of the duodenum. This case also recovered.

The author uses the second lower incision in these cases, both because of better drainage and because there is not so much likelihood of hernia with two incisions to protect.

The SUPRARENAL CAPSULES in the Treatment of HAY FEVER and DISEASES of the HEART

"The Suprarenal Substance is in my experience a specific for the symptoms of hay fever, and a remedy to rapidly and surely restore the condition of the nasal erectile tissue."

"The Suprarenal Substance is an ideal heart stimulant. No other drug can compare with it for rapidity of action, strength, efficiency and safety combined."

The Suprarenal Substance should be given in 5 to 10-grain doses in capsules which are chewed and swallowed without water.

SAMPLES AND LITERATURE UPON RECEIPT OF PROFESSIONAL CARD

ARMOUR & COMPANY CHICAGO

NEW REMEDIES.

Hypotone.—A new product, which contains a combination of remedies suitable to a variety of conditions, is found in hypotone. Advantage is taken, in the compounding of this medicament, of the great benefits that come with the administration of the reconstructant phosphorus with iron and manganese, nux vomica and coca. The basis of the preparation lies in the combination of the hypophosphites which it contains. In the very beginning of therapeusis the importance of the use of phosphorus in certain diseases of malnutrition was recognized and emphasized. We know now that the *rationale* for the use of phosphorus in a variety of conditions where it is indicated, is to be found in the physiologic-chemical axiom that phosphorus is a main constituent of bone and nervous tissues—bodily entities—than which there are none more important. It seems perfectly reasonable that phosphorus should be a necessity in tonic medication, for the very reason just indicated. It is the nervous system which demands a new tone in states of depression, exhaustion or emaciation. It is the bony system which needs new material in the common disease of infancy—rachitis. The rachitic child craves phosphorus and must have it, else no improvement in its condition can be hoped for, even though the dietary fault in hand should be corrected.

It is indeed a happy mixture which is now presented to the profession in the shape of hypotone. The sum of its usefulness can be found in the sentence, that it is useful where phosphorus is needed, and without phosphorus it is difficult (in instances impossible) to attain successful tonic medication. Hypotone, above all, will be a widely used remedy in tuberculosis, in rachitis, and in general in depressed and depleted states of the organism. It is a pleasant mixture, which promises much and which will accomplish much, for no other reason than that it is composed of remedies which fulfill certain well-known indications, and that, too, in as advantageous a way as it is possible to do so. All the well-established principles of good tonic therapeusis have been noted in the make-up of this product.

Gorham Adjustable Bed.—A mechanical improvement in invalids' beds, whereby the patient may be given a plunge bath, the mattress and linen changed without touching the patient, and surgical cases (such as fracture of the leg) can assume an upright position and support the weight of the body on the sound leg without assistance, is an advance of interest to progressive physicians. These and others are points of improvement claimed for the Gorham adjustable bed, which is equally available for use in hospital or private homes. By the mechanical construction of this apparatus the patient can be given the sitting posture for all evacuations, for reading, writing or eating, without disturbing muscular rest. By hammock attachment the patient can be raised ten inches above the bed, and the linen changed or aired; this being done by mechanical force, and so easily as to be operated by a child.

The value of such a bed for surgical cases, typhoid fever and inflammatory rheumatism patients, for obstetrical cases, and many other conditions too easily recognized to need reference to here, is equally a boon to physician and patient.